

FY86 Payroll Reaches Nearly \$318 Million

The Sandia payroll for fiscal year 1986, which ended Sept. 30, amounted to \$275.2 million at SNLA and \$42.7 million at SNLL. For FY85, these figures were \$269.8 million for Albuquerque and \$42.2 million for Livermore. Salaries of 75 employees at NTS and TTR are included in the Albuquerque figure.

At the end of FY86 Sandia had 8277 employees on roll, including 1061 at Livermore. The total is 24 more than the 8253 figure reported at the end of FY85.

Assets of DOE's installations operated by Sandia totaled \$835.5 million at the end of FY86, compared to \$870.2 million in FY85. (The FY86 figure is lower because of an accounting change, whereby property items valued at less than \$5000 are no longer included in the total.) These figures represent acquisition cost of buildings and facilities at SNLA, SNLL, and TTR. All assets are the property of DOE, but are used and operated by Sandia in R&D work for DOE.

Purchases by Sandia in New Mexico amounted to \$226.8 million for FY86. About 98.3 percent of the amount, or just under \$223 million, went to firms in the Albuquerque area. Purchases from other DOE contractors are not included. Purchases in the state in FY85 amounted to \$203.1 million.

The Labs paid \$26 million in New Mexico gross receipts tax on its purchases in FY86 and nearly \$709,000 in New Mexico unemployment insurance taxes. More than \$6.9 million was withheld from employee paychecks for New Mexico income taxes.

Some Shifts in the Sandia Skylines

New Construction Underway, More Upcoming

Lots of construction going on around Sandia, right?

"Well," in the words of Ward Hunnicutt, director of Plant Engineering 7800, "you ain't seen nuthin yet!"

Sandia is now heading into its fourth decade with a spate of building construction that hasn't been seen since the late 40s and the mid-50s (see list, "So How Old's Your Building?").

The newest surge began in 1980 with Bldg. 821 (Safeguards); it was followed by Bldgs. 823 (Systems R&D), 891 (Energy Technology), 825 (Technology Transfer Center), 957 (Shipping & Receiving), the PBFA II (Particle Beam Fusion Accelerator II) facility, 960 (Reactor Support), and the Simulation Technology Lab (the latter three in Area IV).

Currently under construction are the RHIC (Radiation-Hardened Integrated Circuits) Lab in the far southeast corner of Tech Area I and the Process Development Lab west of Bldg. 887 (see "New Home" sidebar). Together, the costs for these two projects will total some \$68 million.

The list of planned (or proposed) new additions to the Sandia Albuquerque landscape over the next, say, five years is even longer: an Instrumentation Systems Lab north of Bldg. 880, a Strategic Defenses Facility on the north side of Area IV, an Explosives Components Facility that will eventually replace all the buildings in Area II, an Integrated Materials Research Lab east of Bldg. 807, a Primary Standards Lab southwest of Bldg. 880, a Computer/Computer-Aided Engineering Facility south of Bldg. 880, an Aerodynamics Lab halfway between Areas I and IV, a Geoscience Research Lab just south of that, a Warehouse Complex just east of the new Shipping & Receiving building, and an Advanced Components Technology Lab west of Bldg. 893.

Construction planned for Area V includes an Integrated SNM (Special Nuclear Materials) Facility and a Reactor Laser Facility.

Then there's the remodeling. Currently, Bldgs. 802 and 836 are being transformed, and — now that



FAMILY DAY VISITORS bask in the reflection from a heliostat aimed at the Power Tower.

More Family Day Photos, Page Eight

LAB NEWS

VOL. 38, NO. 21 SANDIA NATIONAL LABORATORIES OCTOBER 24, 1986

Shipping & Receiving is out of the way — it's Bldg. 894's turn; Bldg. 892's turn will follow.

Of course, that's just Albuquerque. Livermore now has a Weapons Lab under construction southwest of Bldg. 911. Also under construction are a Security Building and a Shipping & Receiving Building. Ahead, given funding, are a Defense Engineering Lab, a Weapons Engineering Development Facility west of the Tritium Research Lab, and a High-Temperature Science Center east of Bldg. 921.

And Livermore is planning to add a Tritium Components Lab, add to the Combustion Research Facility, and continue strengthening buildings against earthquake damage. All the Livermore construction totals 359,000 square feet.

Tonopah Test Range's plans are more modest — TTR's Operations Control Center was extensively upgraded in 1980-81 — but an Emergency Support Addition (firefighting capability added to existing security and first-aid capabilities) will soon be under construction, and an addition to the administration building is being designed.

Total construction costs (without the remodeling work, and excluding those with cost figures already mentioned) would run to about \$550 million.

Escape is Possible

Given all this construction, on the one hand, and given nearly 2000 Sandians Albuquerque in (Continued on Page Four)

Playing Catch-Up

Building Program: Back on Track

The current spate of construction at Sandia could lead an uninformed observer to conclude that the Labs is building for the sake of building. Not so.

Let's put the construction program into some perspective. First, *if* all the planned and projected buildings were constructed — and that's a highly unlikely "if" — Sandia would gain about a million square feet of floor space. But some 450,000 square feet of temporary and substandard space would be removed, so the net gain in floor space would be only 11 percent of the current total.

Second, between 1966 and 1980, Sandia constructed no major buildings (except for the Power Tower). We're now, finally, catching up.

And third, we've got a lot of catching up to do. When it comes to square feet of building space per employee, Sandia has ranked near the bottom of all DOE labs and at the bottom of DOE's national labs. It's true that the only real data on the subject come from a Congressional study that's

now six years old, but the rank order is probably about the same, according to Charlie Winter (400).

In the all-DOE lab ranking, Sandia's 284 square feet per employee made us 38th out of 40. And the national labs stacked up like this:

Brookhaven	929
Argonne	767
Oak Ridge	747
Los Alamos	716
Lawrence Berkeley	396
Pacific Northwest	327
Lawrence Livermore	322
Sandia	284

As Jim Mogford (400) put it at the time, "If Sandia were to add enough space to tie for last place in space per employee among national laboratories, it would need [to add] 275,000 net square feet, equivalent to more than seven additional buildings the size of 806 or more than the total net space in Area I at Sandia Livermore."

Antojitos

Family Day: Beyond the Hassle The basic value of opening Sandia's gates a couple of times a decade lies not, it seems to me, in attracting media attention to the Labs, in showing off our technical prowess, or even in inspiring our offspring to aspire to careers in science or engineering. Rather, it's that your family members need the chance to see and explore the Sandia niche, spacious or spare, where you work. You probably take your work site for granted, but the people who love you need to be able to call up a mental picture of you in the place you do your job, to get a sense of you in your surroundings. That's the essence of Family Day.

So much for philosophy. Now for the names. Obviously, Family Days don't just happen. This year, the steering committee was headed by Jim Mitchell (3160), "but" says Jim, "Joe Laval [3163] did all the work." (Joe's the resident pro here -- he also coordinated the Family Days of 76 and 81.) Others who deserve thanks include security coordinator Bob Wilde (3430) and his primary assistant Hazlet Edmonds; invitations and hospitality head Ellen Cronin (6330), and Peggy Burrell (3543), who handled retiree relations; George Urish (2830), the tour planning committee chairman; safety coordinator Don Rost (3316); Irene Dubicka (3162), who wangled room in most LAB NEWSes for publicity; Jim Winter (7813) and all the other Plant Engineering folks involved in site preparation and clean-up; and, of course, all the directorate representatives -- too many to mention, but if each of you thank yours, they'll get the gratitude they deserve.

* * *

Hey, AT&T, We're Out Here -- And We Read You! The October *New Mexico Magazine's* "One of Our Fifty is Missing" column contains the following: "Santa Fe lawyer Richard Abeles used to pick up the Albuquerque phone book at an AT&T store in Santa Fe. But since that store closed, he wrote AT&T for a copy of the directory. The phone book arrived in the mail -- straight from AT&T's Foreign Directory Center in Aurora, Colorado."

A column called "Inside Info" in the Oct. 6 issue of AT&T Technology Systems INSIDER newsletter notes that employees should not comment, either positively or negatively, on suggestions from the public for new AT&T products or services. Only one organization, Ed Horst's Public Suggestions Analysis Group, is authorized to analyze suggestions from the public. As the newsletter puts it, "Horst's organization [is] the soul group in AT&T designated to handle suggestions . . ."

We Slip Up Too The recent Property Management Communication flyer was an S.O.S. -- help us Spot Our Shortages. It went on to say "It is MANDATORY that ALL Sandia property have the new bar code label, replacing the old B and S numbers." (Glad they left that "and" in there.) But I found myself checking my pencils -- they're certainly Sandia property -- before I realized it was one of those communications that are totally clear only to the people who write them. ●BH

* * *

The person who can smile when things go wrong has thought of someone to blame it on.

Welcome

Albuquerque

Suzette Beck (154)
Thomas Brown (7265)
Fred Dickey (2335)
Maria Hernandez (22)
Richard Mackoy (7265)
Margaret Olson (2641)
Barbara Peterson (154)
Berta Rodriguez (22)
Maria Wolf (21)

Arizona

David Dobias (7862)

California

Kent Meeks (5172)

Colorado

Richard Fisher (7554)

Georgia

Robert Phillips (3316)

Louisiana

John Eldridge (2634)

Maryland

John Ford (6451)

New Mexico

Robert Goetsch (7261)
Perry Jones (7116)
Regina Melbourne (21-1)

Ohio

Michael Brandon (5142)

Tennessee

William Dobson (132)

Texas

Evan Ashcraft (132)

Congratulations

To Julie and Ayden (2341) Young, a daughter, Chelsea Lynn, Sept. 22.

To Mary Smith and Ernie (2812) Ayers, married in Albuquerque, Sept. 27.

Sympathy

To Esther Baca (7475) on the death of her mother in Texas, Sept. 27.

To Gregory Garcia (7818) on the death of his father in Albuquerque, Sept. 28.

To Emma Quintana (7475) on the death of her son in Albuquerque, Oct. 3.

To Virginia Padilla (7251) and Chester Chavez (3429) on the death of their father, and to Pro Padilla (3743) on the death of his father-in-law in Albuquerque, Oct. 3.

To June Vosburg (5164) on the death of her mother in Wichita, Kansas, Oct. 3.

To Jose Sanchez (7818) on the death of his brother in Albuquerque, Oct. 9.

To Eric Schindwolf (7543) on the death of his son, and to Rudy Schindwolf (1622) on the death of his grandson in Albuquerque, Oct. 12.

APPRENTICE PRO — Ed Gullick won this year's Director's Award, presented by Materials Process Engineering and Fabrication 7400. Jim King's (7400) letter to Ed, the Apprentice Employment Coordinator in Personnel and General Employment Div. 3533, commended him for "providing top candidates for all of Sandia's apprentice programs. Furthermore, by revising a number of past apprentice hiring procedures, you have significantly reduced the time required to bring apprentices into the program."

LAB NEWS

Published Fortnightly on Fridays

SANDIA NATIONAL LABORATORIES

An Equal Opportunity Employer

ALBUQUERQUE, NEW MEXICO
LIVERMORE, CALIFORNIA
TONOPAH, NEVADA
AMARILLO, TEXAS

Sandia National Laboratories is operated by Sandia Corporation, a subsidiary of AT&T Technologies, Inc., and a prime contractor to the U. S. Department of Energy

BRUCE HAWKINSON, Editor
PHYLLIS WILSON, Writer
IRENE DUBICKA, Writer
RANDY MONTOYA, Photographer
GERSE MARTINEZ, Asst. Photographer
JANET WALEROW, Editorial Assistant
SHELLY BARNES, Assistant
BARRY SCHRADER, Livermore Reporter

Member International
Association of Business Communicators

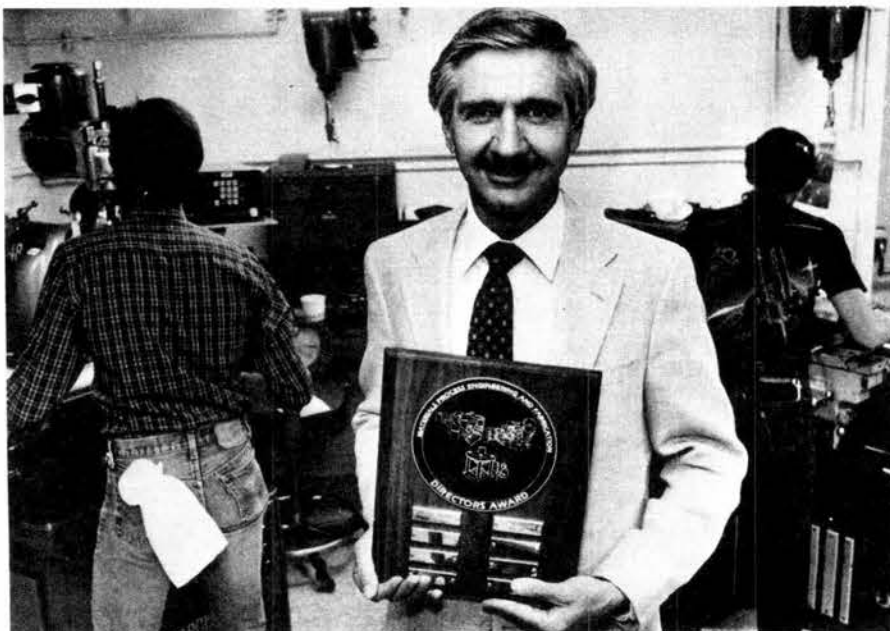
Shocking Fillings



Japanese firms are selling an electric toothbrush with a difference. It has no motors. Instead the brush cleans teeth by turning the mouth into an electric battery, and recharging it. . .

The electric current forces fluoride ions into the gums and mouth tissue. At the same time food residues on the teeth are broken down by the current. The voltage is low and the current, of a few microamperes, is small, so there is no risk of electrocution. But people with metal fillings may feel some discomfort. [One brand even] runs on solar power.

New Scientist





RETIRING EXECUTIVE Vice President Tom Cook (20) was honored at a recent reception by more than 400 Sandians from Livermore, where Tom "spent the best 14 years" of his career. Among the gifts he received that day were (left photo) a personal-sized laser from the Combustion Research Facility. Dan Hartley (8300), who presented the gift, warned Tom that he shouldn't try to plug it in at home. In



right photo, Rick Wayne (8400) gave Tom his very own Tritium Research Lab (sans tritium) in a bottle, which was hand blown by George Cosgrove (8314). Tom also received a historic clippings book from 8100, an engraved mirror from 8300, a videotape and memory photo book of the occasion from 8200, and lots of handshakes from old friends and well-wishers.

Fun & Games

More than 100 runners, joggers, and walkers participated in the 2000-metre LEAP race this year. The winner again was Jim Reitz (8176) with a 6:16 time, followed by Michael Alley (8265) two seconds later. They were ahead of a pack that included Glenn Kubiak (8343), Dick Steeper (8361), Barry Bolden (8161), and Bill Wilson (8320), with only one second separating third from sixth place. The top female runner was Betty Pimentel (8236) with a 12:02 time. She was followed by Kellee Dankiewicz (8271), Terry Porter (8235), Carol DeWolf (8245), and Dona Crawford (8235).

After adjusting times for runners' ages, the order of finish for men was Reitz, Bolden, Wilson, Joe Treml (8176), and Bob Green (8362). For women the order was Pimentel, Dankiewicz, DeWolf, Crawford, and Porter.

Under a scoring system that measures both performance and percent participation, the directorate winner this year is 8200, dethroning last year's LEAP champion, 8100, and the 1986 Directorate Challenge Race champs in 8300 earlier this year. The traveling plaque will be held by Arlyn Blackwell (8200) and his successor Ron Detry (soon-to-be-8200) until next year's challenge race.

Congratulations

Susan and Ken (8241) Perano, a son, Timothy William, Oct. 6.

Sympathy

To Darryl Beers (8316) on the death of his mother in Kennewick, Wash., Sept. 19.

To Annie Webb (8181) on the death of her grandmother in Anniston, Ala., Sept. 26.

To Dot Harrell (8231) on the death of her mother in Portsmouth, Va., Oct. 2.

LEAP Faire Fun

LITTLE EUGENE & THE THUNDERBIRDS entertained with lip-synch songs: Arlyn Blackwell (8200) croons "Get A Job" as (from left) Rick Wayne (8400), Larry Bertholf (8430), Dan Hartley (8300), and Gene Ives (8100) provide backup antics.



SANDIA LIVERMORE recently hosted a DOE all-agency conference on hydrogen storage sciences and their application. Some 52 scientific papers were presented at the 20-hour meeting. Conference objective is to promote regular information exchanges among DOE weapons complex researchers. Based on the number of papers presented and comments from attendees, the conference was successful, according to conference chairman Jim Wang (8442). Shown welcoming participants on opening day is Dan Hartley (8300).



SANDIA LIVERMORE NEWS

VOL. 38, NO. 21

SANDIA NATIONAL LABORATORIES

OCTOBER 24, 1986



New Home for Process Development Labs

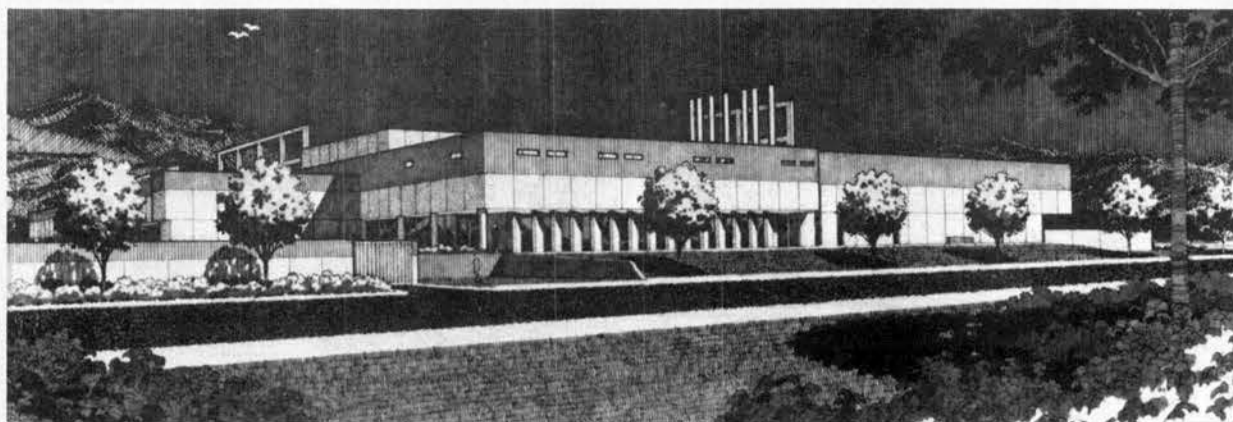
Sandia is not a manufacturing plant, has no assembly lines, and doesn't really produce anything except ideas, designs, and prototypes. Yet, we have an amazing variety of "shops" that produce an equally amazing variety of prototype devices, components, and assemblies — each one designed to test whether the ideas are workable, reproducible somewhere else.

In these shops — more precisely, process development labs (shops are what line the malls of America) — work some highly skilled crafts people. For years, they've been relegated to the old buildings, the out-of-the-way corners, the spaces the engineers and scientists weren't attracted to.

Have faith, crafts people! New facilities are on the way.

The long-awaited Process Development Lab (PDL) is now rising just west of Bldg. 887, Plant Engineering. With total construction, equipment, and engineering costs projected at more than \$21 million, its floor area of 119,000 square feet will, by April 1989, house 180 or so people from the Materials Process Engineering and Fabrication Directorate 7400. Currently, these folks are subsisting in all or parts of Bldgs. 814, 834, 840, 841, 844, 845, 860, 880, 891, 892, 894, and several mobile offices.

The functions to be moved into the PDL include labs dealing with ceramics, physical electronics, plastics, hybrid microcircuits, electronic fabrication, precision components, process analysis, photofabrication, fabrication inspection,



ARTIST'S RENDERING of the Process Development Lab, now underway west of Bldg. 887.

mechanical measurements, machine shop component development, electronic testing, and electronic training; in addition, some administrative offices will be housed in the PDL.

"Naturally, we're delighted at the prospect of a new building with adequate space and equipment," says Jim King, 7400 director. "It's something many of us in 7400 have been working toward for a long time. The PDL will replace some buildings that date back to WWII — quonsets, barracks, and other substandard facilities.

"All of us in 7400 are most grateful to Small Staff for realizing that the 7400 task is critical and for helping to get the PDL funded," Jim continues. "I know that Orval Jones [5000] and Bob Peurifoy [7000] were especially strong supporters, and Orval argued most persuasively that San-

dia needs a first-rate facility to conduct work that is vital to Sandia's main missions."

And that work is vital: 7400's charter is to serve as the interface between the engineers and scientists in the weapons and the components organizations, on the one hand, and the production agencies across the country, on the other. "What we do is called process engineering," says Jim. "It plays a relatively small, but highly important role, in the development cycle. After all, a device can look good during the early stages of R&D, but that doesn't mean it's easily reproducible in quantity out in the production agencies. Our role is to serve as process engineers — we translate R&D-developed processes into adoptable production processes."

Continued from Page One

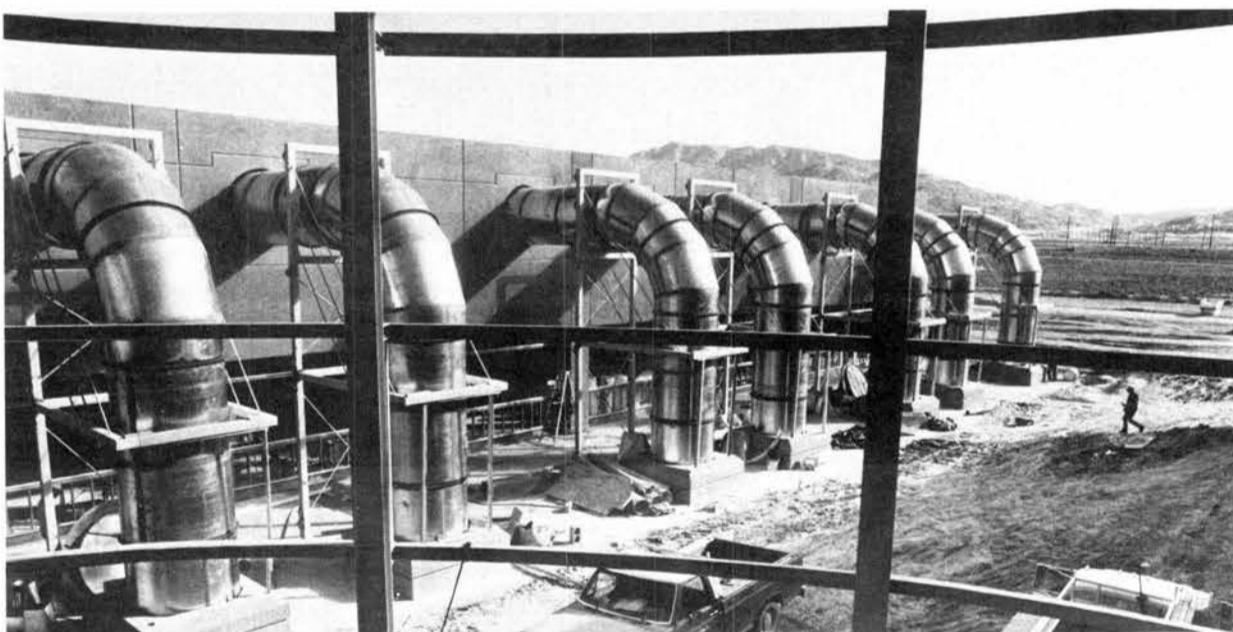
Construction

"temporary" buildings, mobile offices, old Army barracks, T-buildings, and other substandard habitats, on the other hand, what are the chances of escape to the new places? About 50 percent.

Some 1000 people will find homes in the Sim-

One bit of current work that Plant Engineering is proud of is a rush \$1.4 million project that took special effort by Divisions 7831, 7832, and 7833. "We got the assignment on Aug. 14," reports Vern Easley (7830). "Organization 300 asked us to construct a 20-acre facility [northwest of Area IV] in which it could conduct studies in arms control verification. We've got seven contractors working now, and the facility will be operational by Dec. 1. It includes three buildings with 5000 square feet of floor space, all utility systems, some raised floor areas for computer operations, fences, perimeter lighting, roads, and a railroad spur into the site." And Org. 300 is pleased — "Plant Engineering has done an extraordinary job," says Roger Hagengruber (300).

ulation Technology Lab, the RHIC Lab, the Process Development Lab, the Strategic Defenses Facility, and the Instrumentation Systems Lab.



VIEW FROM ONE WING of the RHIC (Radiation-Hardened Integrated Circuit) Lab to another. Vents are part of its 12,500 square feet of Class 10 clean room.

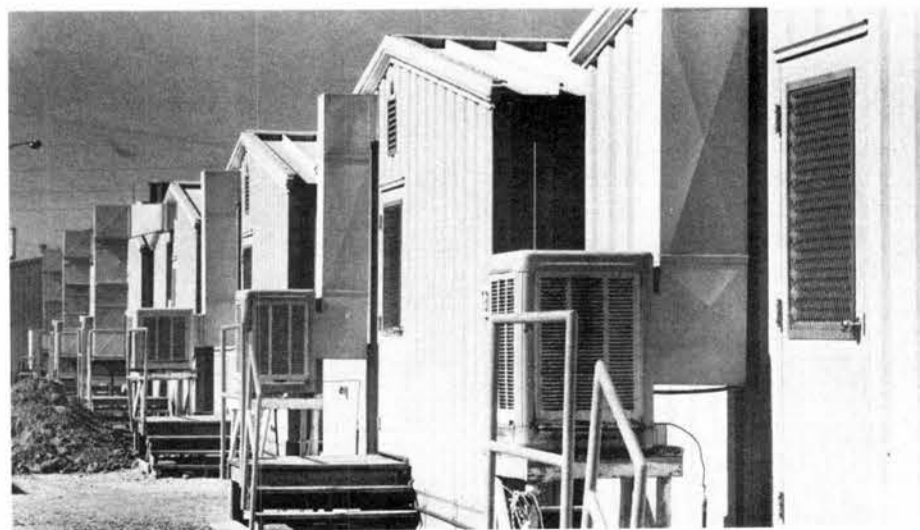
Another 300 will end up in smaller (less than \$1.2 million each) facilities funded under "General Plant Projects." These include additions to Bldgs. 887, 872, 870 (for Bendix), Medical, and the SCARS (System Control And Receiving Station) building;

all of these are now being occupied (see "Medical: More Space" for details on the additions over there). The Education & Training Building should be ready for occupancy by mid-December, a Bldg. 892 addi-

(Continued on Page Six)



AESTHETICS ON THE EAST SIDE. The 11th Street Mall stretches from H Street to Bldg. 822.



CURRENT SPATE of construction, unparalleled since the early 60s, will mean that some substandard buildings can be razed.

Medical: More Space, More Privacy

If you've been to Medical (Bldg. 831) recently, chances are you've noticed some definite improvements. And if you think things aren't quite so crowded as they used to be, it's certainly no illusion. "Finally we're seeing the light at the end of the tunnel on a major expansion project," says Dr. Paul Mossman, director of Medical 3300.

"Everyone — the medical staff, as well as our employee-patients — has had to put up with some inconveniences since construction began in October 1984," Paul says. "But now we have a first-class facility with a much more efficient floor plan that should handle our needs for some time to come."

"It used to be congestion everywhere," he continues. "Happily, we don't have to experience that anymore."

A definite plus as a result of additional space and facilities, Paul reports, is more patient privacy. For instance, patients waiting for X-rays no longer have to sit around in hospital gowns in a group setting until their turns come up. And a new, expanded area for alcoholism program activities and staff psychologist appointments is much more private; it has its own separate entrance, and is removed from the day-to-day general traffic pattern.

The new additions to Bldg. 831 increase Medical's space by a third — from 8000 sq. ft. to 12,000

sq. ft. — making it much easier for five full-time doctors and one who works part-time for Sandia to handle the average 100+ per day "drop-in" patient load. In addition some 30 people show up each day for either Part I or Part II of their routine physicals. There's also more space for emergency treatment and a larger "rest area" for employees who don't feel well.

A conference room has been added, so now TLC classes and CPR sessions don't have to be farmed out to other buildings. The conference room is also used both for in-service training for Medical staff

and for administrative meetings. There's a new radiation decontamination room. ("Thank goodness we've not had much need for that facility over the years," says Paul. "However, it's [having such a facility] a DOE requirement.")

The old "decon" room has been refurbished, and is now being used exclusively for physiotherapy. This separate area has equipment such as ultrasound, for deep-heat treatment of muscle pulls and strains; Dyna-wave, which provides electrical stimulation for wasted muscles, e.g., muscles unused for

(Continued on Page Six)



PHYSICAL THERAPIST AIDE Lauren McConnell administers an ultrasound treatment to an employee-patient in the new physiotherapy facility in Bldg. 831.

Variations on a Theme

Four Buildings, One Floor Plan

If, after a stroll through Bldgs. 823 and 891, you have a feeling of *déjà vu* all over again, you're right. One building is, essentially, the mirror image of the other.

And two of the proposed buildings (the Instrumentation Systems Lab and one of the buildings in the Strategic Defenses Facility) will be variations on the same theme, or plan.

"It's not that Plant Engineering is suffering from a paucity of imagination," explains Ward Hunnicutt (7800). "It's that we can cut both lead time [the time spent before the actual construction begins] and the A & E [architect and engineering] costs if we are able to use the same basic building design for more than one structure."

The design for the family of four facilities grew out of the design for Bldg. 821, which was developed by what was then Design Division III under Ken Harper (now 7840); the architectural firm of Flatow, Moore, Bryan and Associates; and the mechanical engineering firm of Allison Engineering. "Bldg. 821 proved to have several advantages," says Ken, "and from it, we've spun off in two directions. One is the 'four peas in a pod' [mentioned above]. They're like 821 but higher — four stories rather than three — and wider, so they have about twice the floor space of 821.

"The other direction is the 821 look-alike

— the office/light lab building [960] in Area IV and the Weapons Lab Building in Livermore. Both of them have the same floor plan as 821. The only real difference between the two is that the Livermore building was 'site adapted' to meet different seismic codes — Livermore is, after all, in California! — so it has fewer windows."

The design for Bldg. 821, its twins, and its progeny has a couple of major advantages. As the foregoing suggests, the design is flexible, adaptable to a variety of office/light lab needs.

But what really sets the 821 family apart is its unique energy-saving features — "some of the most energy effective and innovative HVAC [heating, ventilation, and air conditioning] designs in New Mexico," says Douglas Guinn, vice president of Allison Engineering.

These features include a variable air-volume/air-moving system for air conditioning — "That means you can put as much air as you need where you need it," says Ken. The system also supplies "make-up air" to offset the heat removed by lab exhaust fans during cold weather.

Other features are a solar-assisted water-heating system and "air washers" to provide evaporative cooling for a portion of the building's cooling needs and for the lab exhaust system. In the winter, heat is recovered from lab exhausts

(via a heat transfer process that ensures that building occupants have clean air to breathe).

The heart of the energy-saving systems is the thermal storage vessels, which are coupled to the chillers that reclaim heat from the cooling process. "The chillers produce heat for each building's space and make-up air needs," says Douglas. "That is, the chillers direct waste heat into the water-heating circuit rather than throw it away in a fog cloud from rooftop cooling towers.

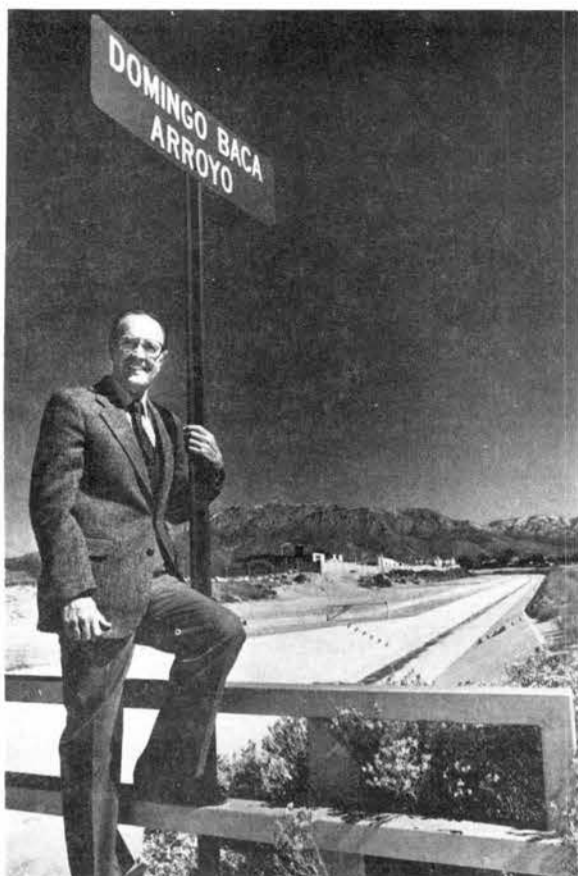
"At the same time, the chillers generate cold water for process, lab, and comfort cooling," he continues. "The thermal storage vessels can retain waste heat and provide a pool of energy to prime the heat pump for cold-weather starts."

Of course, passers-by, strollers-through, and dwellers-within these buildings don't notice all the HVAC systems hidden in the walls, ceilings, and roofs, and the fresh-air intakes in the buttresses (no, those aren't braces to keep the walls standing) that distinguish members of the Bldg. 821 family. But the energy savings are quite noticeable when it's time to pay the utility bills: The average Sandia building uses 345,000 BTUs of energy per square foot per year; the 821 types use only 52,000.

The moral of this story: Once you've got a winner, don't originate; replicate.



NOTE FAMILY RESEMBLANCE: Bldg. 891 (left) and the Weapons Engineering Lab (still under construction in Livermore) share a common ancestor, Bldg. 821.



STANDING BENEATH one of the new signs that remind Albuquerqueans of how many arroyos snake through the city is Ward Hunnicutt, Director of Plant Engineering 7800. He's a member of the board of directors of AMAFCA (Albuquerque Metropolitan Area Flood Control Authority), and, as the photo suggests, he has a professional interest in protecting the city from flooding. A bond issue on continued upgrading of the arroyo and diversion channel system is on the Nov. 4 ballot.

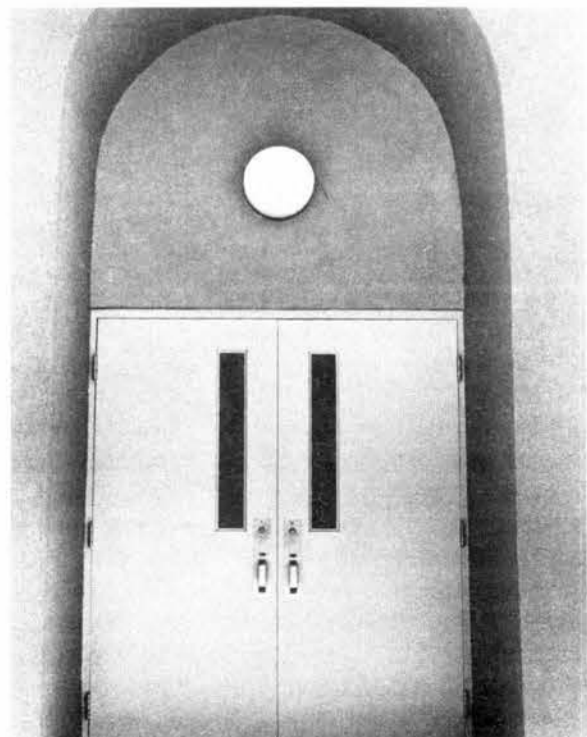
Continued from Page Four

Construction

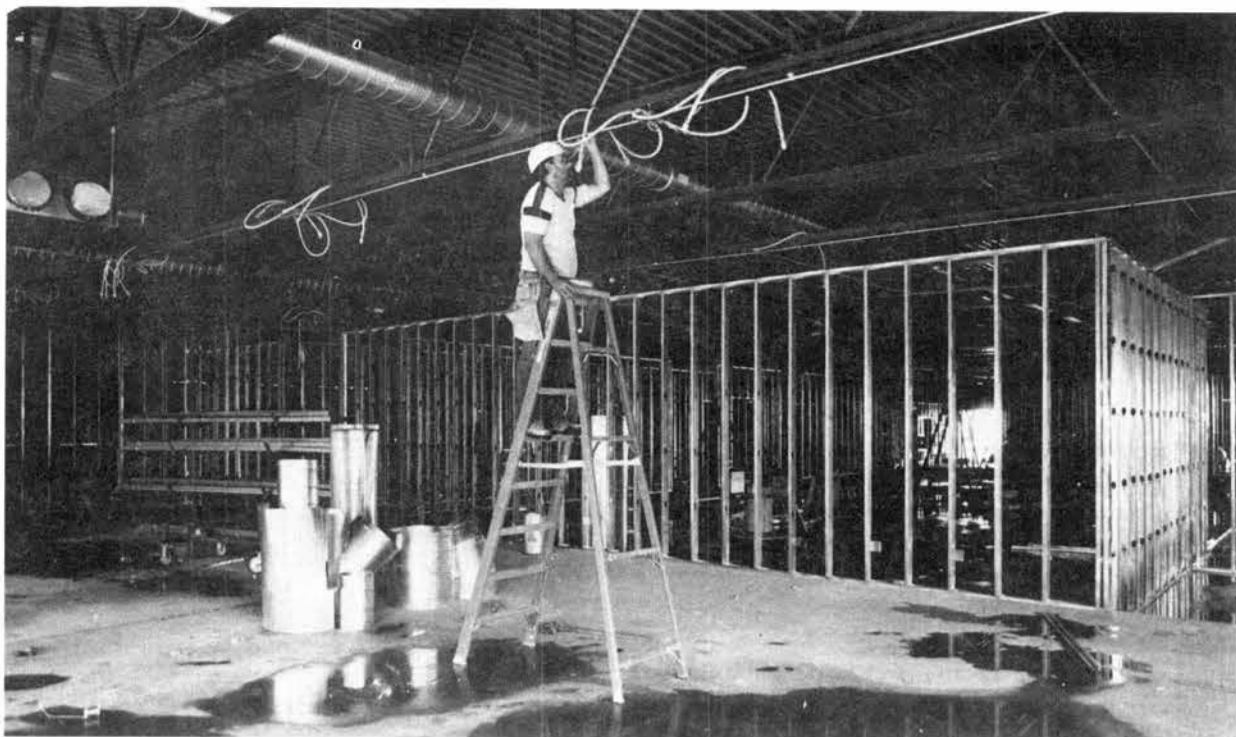
tion by spring. Combine these with half a dozen other GPP projects in Areas III, IV, and Y, and the total runs to about \$10 million.

The exodus from old to new is not a sure thing — funding by the Congress is not easy to predict because it has difficult decisions to make — but Sandia management is definitely committed to doing everything in its power to get rid of the outmoded and substandard buildings. As Bob Peurifoy (7000), chairman of the Buildings and Facilities Planning Committee, points out in a letter to his fellow vice-presidents, "I am dedicated to getting rid of all of our temporary and substandard buildings, and I solicit your help and cooperation."

Ward is every bit as dedicated to the same cause: "I believe that not only many of our old substandard buildings but also some of our new temporary buildings will be gone in three to five years. That's a commitment." ●BH



STRIKING ENTRYWAY to the SCARS facility, now receiving occupants.



THIS WAS AUGUST. By mid-December, the new 12,000 square feet of space in Education & Training Bldg. 856 should be ready to house Education & Training Dept. 3520; it will be the first time that all three divisions will be located under the same roof. "The co-location means we won't have to duplicate as many 'housekeeping' functions, so we'll be able to better emphasize programs," says Danny Brown (3520). The building will also have three large, video-equipped classrooms and the Individualized Learning Center from Bldg. 892.



FINALLY, enough space to control the vast flow of goods through Shipping and Receiving. Doris Romero (3428) works in Bldg. 957, located south of Area I.

Continued from Page Five

Medical

a period of time after a bone fracture; a whirlpool and hot packs; traction apparatus and weights. Physiotherapy exams, as well as manual therapy, are also conducted in this area.

Two rooms (not just one) are now available for EKG administration, and eventually another eye-ear testing room will be added (there's only one now).

The doctors have new office space, as do administrative people who work on such programs as sick leave, worker's compensation, and Medical record-keeping.

Why the light at the end of the tunnel? Why not the *end* of the tunnel? "There's still a major upgrade of the heating system in the works," says Paul. "But that's supposed to be completed in December. Then I hope it can be safely reported that we *are* at the end of the tunnel — a journey that will have taken slightly more than two years." ●PW



CPR CLASSES meet in Medical's new conference room. The room's also used for in-service training for Medical staff, administrative meetings, and TLC classes.

FY86 Purchasing Action With Minority Firms



DICK RUSSELL (3700, left) AND JON BEDINGFIELD (3731) display the award DOE presented to Sandia in recognition of the Labs' efforts on behalf of minority business development.

Every three working days in FY86, Sandia conducted, on average, 100 transactions with minority-owned small businesses. That adds up to 8325 transactions for a total of about \$29.2 million, according to Jon Bedingfield (3731), SNL's liaison officer for small and minority businesses.

"We're proud of our record in this area," says Jon. "And I'm happy to report that more than half of the \$29+ million spent last year was spent in New Mexico. That's a boost for the state's economy and should definitely encourage local entrepreneurship."

The business that Sandia does with minority firms has increased dramatically during the last 14 years, Jon continues. "In FY72 we had contracts with minority businesses that totaled only about \$597,000," he says. "We increased that amount to about \$12 million by FY80, and it's more than doubled since."

Labs contracts with woman-owned businesses are also increasing, according to Jon. FY86 transactions with these firms totaled 8074; the dollar total on those contracts was almost \$15.7 million. About a third of that amount was spent in New Mexico.

Earlier this month in Washington, D.C., Jon, along with Dick Russell, director of Purchasing and Materials Management 3700, accepted an excellence award from DOE in recognition of Sandia's efforts to give minority businesses the maximum opportunity to secure Labs contracts. DOE General Counsel Michael Farrell presented the award at ceremonies marking Minority Enterprise Development Week (Oct. 5-11).

So How Old's Your Building?

Bldg. Number	Area	Name	Year Acq'd*
814	I	LAB NEWS and Training	46
815	I	Auditorium	46
824	I	Mail Room	46
829	I	Graphic Arts Services	48
800	I	Purchasing and Public Relations	49
804	I	Library	49
830	I	Graphic Arts Services	49
860	I	Environmental Testing Lab	49
3210	I	Coronado Club	50
892	I	Military Liaison, Training, QA Waste Mgmt.	50
894	I	Tech Publ., Inspection & Power Dev.	50
801	I	Security Offices	51
802	I	Admin. and Development Labs	51
840	I	Development Shops and Offices	49&51
863	I	Motion Picture & Film Development	51
831	I	Medical	53
832	I	Personnel, Equal Opportunity, & Benefits	53
880	I	Computing, Field Test, GA, Spec. Proj.	53
887	I	Plant Engr., Maintenance	54
03-50	TTR	Drafting Office - Lab - Cafeteria	56
803	I	Ion/Solid Physics Lab	57
836	I	Weapons Systems Engineering	57
864	I	Glass Development Lab	57
893	I	Laser Physics Lab	57
805	I	Research and Standards Labs and Offices	59
841	I	Development Shops	60
806	I	R&D Labs and Offices	61
6580	V	Reactor Facility	62
03-51	TTR	Administration Bldg.	62
6584	III	Admin. Center for Test Engineering	63
634	I	Aerothermodynamics	65
632	I	Personnel Training and Staff Development	66
807	I	R&D Labs and Offices	66
869	I	Environmental Health Lab	71
9980	Coyote	Solar Power Tower	77
861	I	Cafeteria	78
980	IV	PBFA I Offices	79
981	IV	PBFA I Facility	79
821	I	Nuclear Safeguards Security Lab	80
822	I	Training, Conference, and Display Center	80
03-57	TTR	Operation and Control Bldg.	80
823	I	Systems R&D	82
857	I	CRM Office Bldg.	83
983	IV	PBFA II Facility	83
960	IV	PBFA Offices/Light Labs	84
825	I	Technology Transfer Center	84
891	I	Energy Technology Office and Lab Bldg.	84
957	II	Shipping/Receiving/Reclamation Bldg.	86

*Not necessarily constructed; generally, in early years, acquired from Sandia Army Base (now KAFB-East)



DON CARNICOM (2544)

Supervisory Appointment

DON CARNICOM (DMTS) to supervisor of Interconnections Division 2544, effective July 16.

Don joined Sandia in June 1957 after earning a bachelor's degree in electrical engineering from Ohio State University. He has designed switching devices in the Electromechanical Subsystems Department, with occasional brief assignments in the oil shale development and safeguards areas. Don contributed to the early development of strong link switches and PAL (Permissive Action Link) systems.

He is a member of IEEE. In his spare time, Don enjoys biking, sailing, skiing, and trapshooting. He and his wife Mina live in Sandia Park.

Crying Out for Water



Farmers who rely on irrigation to sustain their crops might soon be able to make big savings by listening in to the sounds made by their plants. When maize, or almost any other plant, finds it difficult to draw moisture out of the soil, it starts to pull apart the water molecules in the cells of its stem, until eventually the cell dies. The noises produced in the process can be picked up by an ultrasonic microphone, giving a "clip-clop" sound when converted into noise in the range of human hearing.

New Scientist

Family Day 86: Educational, Entertaining — and Crowded

- There's no way to know—
- how many youngsters got their first look last Saturday at the desk or the lab or the workbench where dad or mom works
 - how many young students began thinking that being an engineer or scientist (or programmer or purchasing agent) might be almost as exciting as being an astronaut or cowboy
 - how much Sandians in general learned about what's going on at the Labs outside their own division or department.
- But we do know that—
- some 15,600 people came out for Family Day 86
 - given those numbers, the affair went smoothly
 - and it was well worth the effort!



ROCKET SLED SHOTS, morning and afternoon, attracted large crowds. It takes the Nike rocket motors about seven seconds — not three seconds, as we predicted in our Sept. 26 issue — to run the 10,000-ft. track. Even so, several watchers reportedly asked for instant replays of the event.

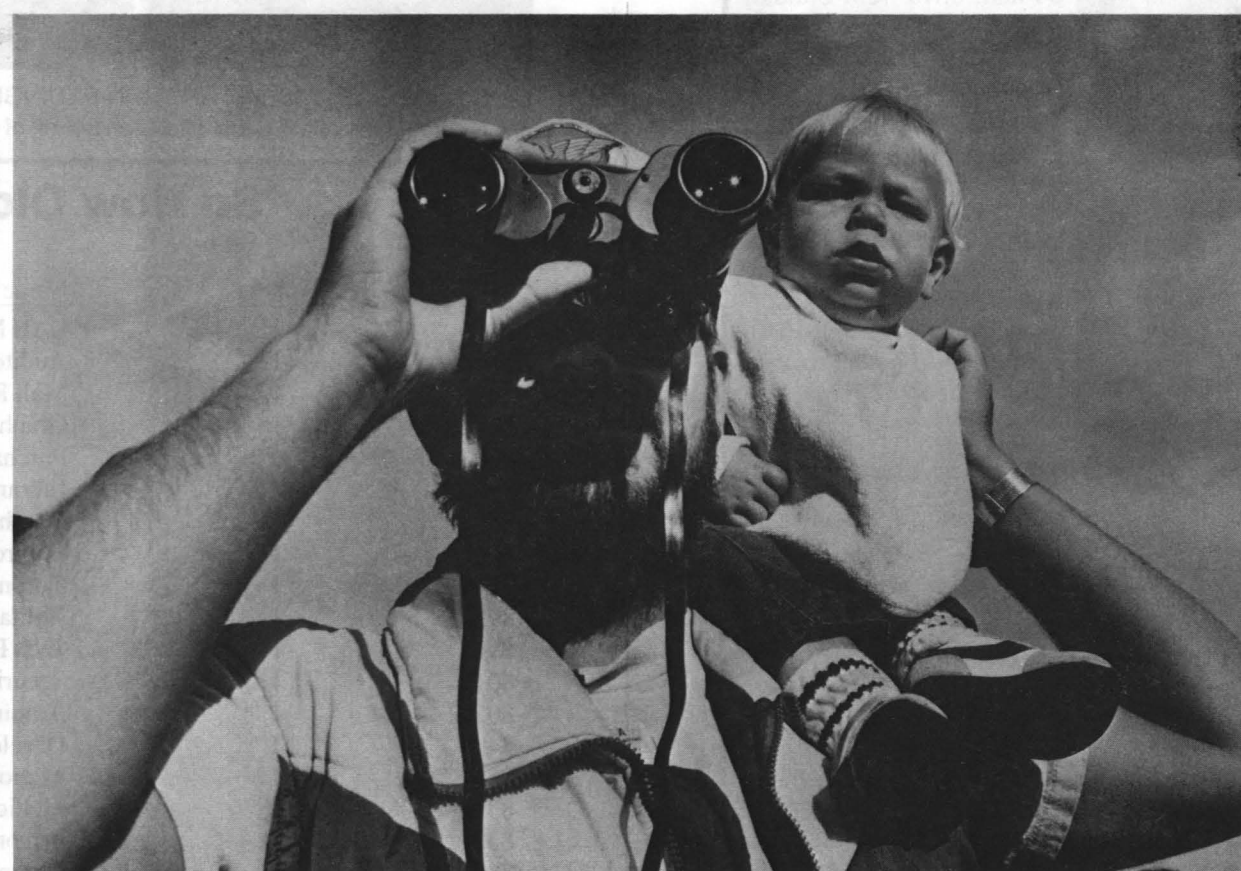


PRECISION SHAPES from the Machine Shop made a good hands-on educational tool.

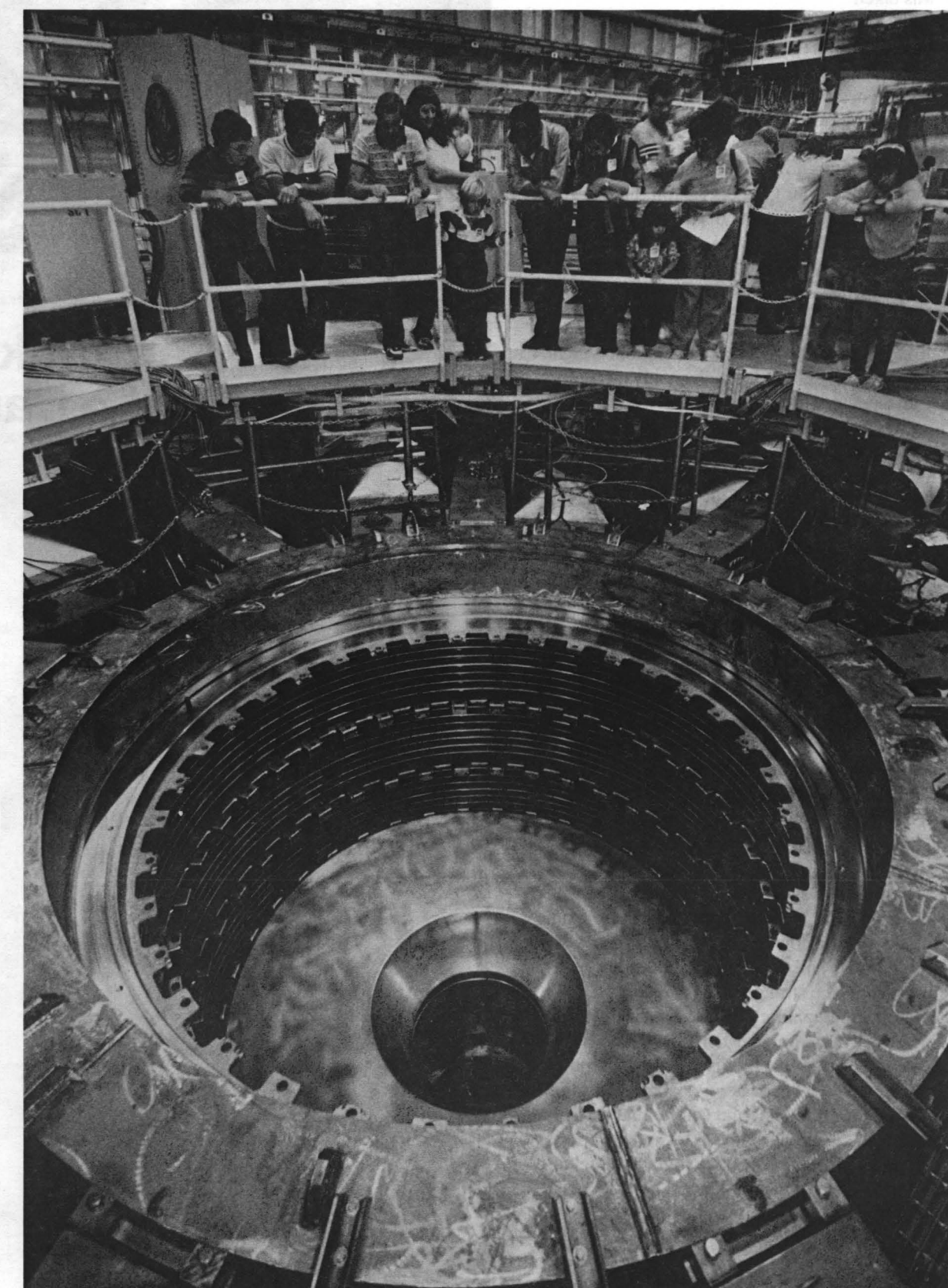
ALL THAT WALKING, all those sights — sure can make a youngster hungry!



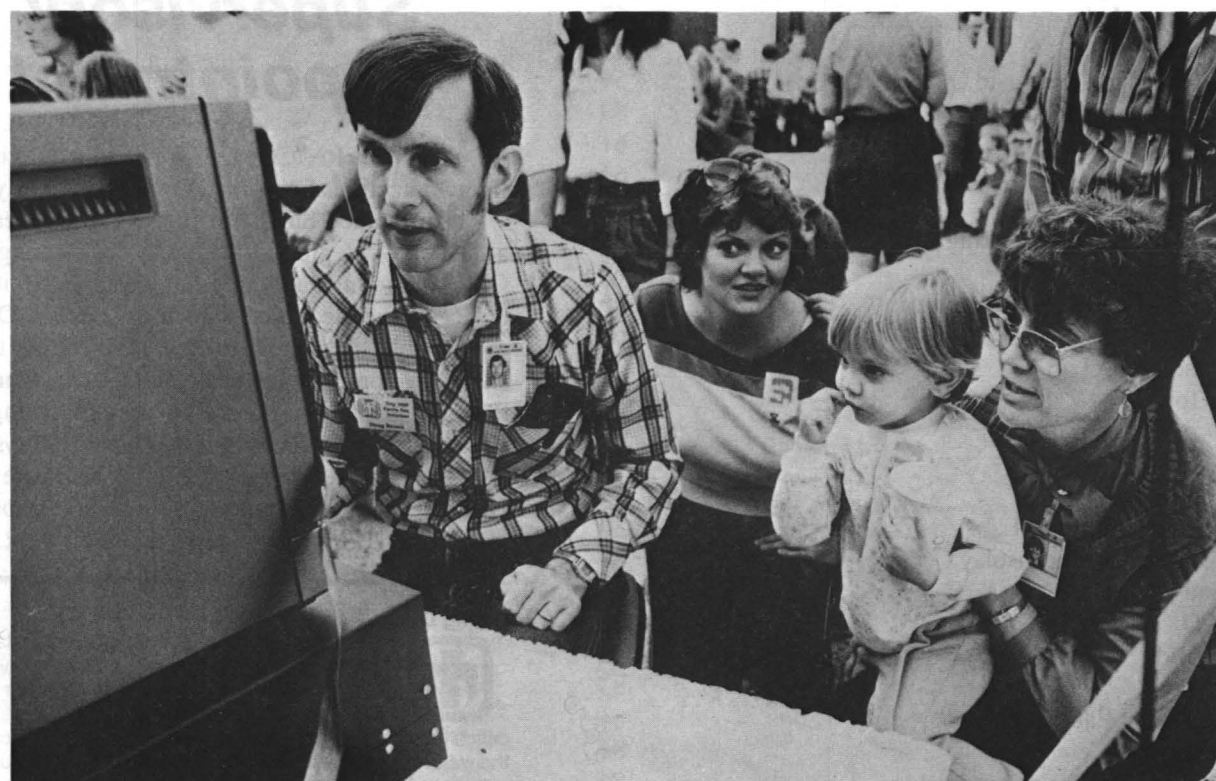
BOTH BOEING and General Dynamics brought full-size mockups of nuclear weapons to Sandia's Family Day. This is General Dynamics' Tomahawk, a sea-launched cruise missile.



"OKAY, DAD, tell them I'm ready for that rocket sled shot anytime — I think."



LOOKING DOWN SEVERAL STORIES into the target area for PBFA II. Family Day visitors got a feel for the inspiring scope of the facility that may someday produce the world's first controlled thermonuclear fusion reaction.



COMPUTER DISPLAY delighted young and old — and was popular enough that many visitors couldn't spend the time it took in line to enter it.



HARD TO TELL what the boy on the left is thinking — maybe "I'd sure like to build one that would do my chores." Whatever, robots do fascinate — and the field of robotics is growing even faster than the children themselves.

Chacoans: The Ancient Ones and The Recent Ones

Great pueblos. Multiple stories and hundreds of rooms. Graceful architecture. Giant circular kivas. Sandstone core-and-veneer masonry exquisite in order and design. Roof beams by the thousands brought in from ponderosa forest 50 miles away. Smaller village sites intermixed with the larger towns. All this situated in a shallow, sandy-soiled canyon of meager resources and marginal moisture. Similar Chacoan settlements spread out across the 26,000-square-mile San Juan Basin. Broad, straight, engineered roadways linking many to each other and to the central canyon complex. Line-of-sight signal-tower communication links. Burial sites perplexingly few. Some evidence of trade with Mexico and the distant Pacific coast but persuasive indications of a unique indigenous culture.

"What was going on at Chaco Canyon? The question forces itself on us," thanks — in part — to Ken Frazier's (3161) new book, *People of Chaco: A Canyon and Its Culture*, from which the above quote was taken.

"This is the first book I've written for all people who care about the Southwest — and ancient life in the Southwest," says Ken. "I hope they'll feel the mystery and be moved emotionally by the spirit of Chaco, as uncovered in new forms by recent studies."

Today's visitors to the 11th- and 12th-century Indian ruins in the Four Corners region, and particularly Chaco Canyon National Historical Park in

***Ed. Note: Part of the continuing, intermittent exploration of the states in which Sandia operates.**

northwestern New Mexico, often wonder about why the then-skyscraping pueblos were abandoned eight centuries ago. Some ask why such an advanced civilization disappeared so long ago.

Ken wants to dispel that myth of disappearance. "The Chacoans are manifested in the Pueblo people of today," he says. "There are some striking contrasts between what some anthropologists call the Anasazi, the Ancient Ones, and their descendants, the Pueblo Indians of Arizona and New Mexico. But those differences can be accounted for by simple passage of time, influence by Spanish and Anglo culture, and the influx of modern technology."

As he sums it up in his book: "Part of the resiliency of Indian cultures is an ability to maintain tradition while adapting to changing conditions."

Nevertheless, the early homesites — from Basketmaker to Pueblo eras — are there, abandoned. Like the Parthenon in Greece, they are artifact-crammed museums with crumbling walls baking in the sun.

The Chacoan homesites weren't discovered by Anglos until 1849, when a U.S. Army expedition headed out to what was by then Navajo territory. Ken opens his book with a chapter on a lieutenant from that expedition and a cowboy, the first people to write about their finds, and a Mexican guide who conjured up some of the strange names (such as Chetro Ketl) that are still puzzling etymologists.

The recently completed ten-year Chaco Project, undertaken by archaeologists and anthropologists from the National Park Service, turned up some unique economic, political, and ceremonial features of Chaco. Ken's book uses these technical reports — and a variety of old and new photographs, including his own — to reflect on the big questions of 'how' and 'why' the culture flourished — and on some partial answers.

Watching the Sun

Why travel to Stonehenge, when there is Fajada Butte and its sun marker? Discovered in the late 70s,

this high-noon marker uses a play of sunlight on three vertical slabs of a normally shaded cliff face. When midday arrives during the week of summer solstice, a "sun dagger" descends through the center of a spiral petroglyph.

Not only does Fajada Butte contain the first cal-

—Why travel to Stonehenge, when there is Fajada Butte?

endar marker of this geometry ever found, but it may also house a controversial shadow-caster for the 18.6-yr. north-south cycles of the moon.

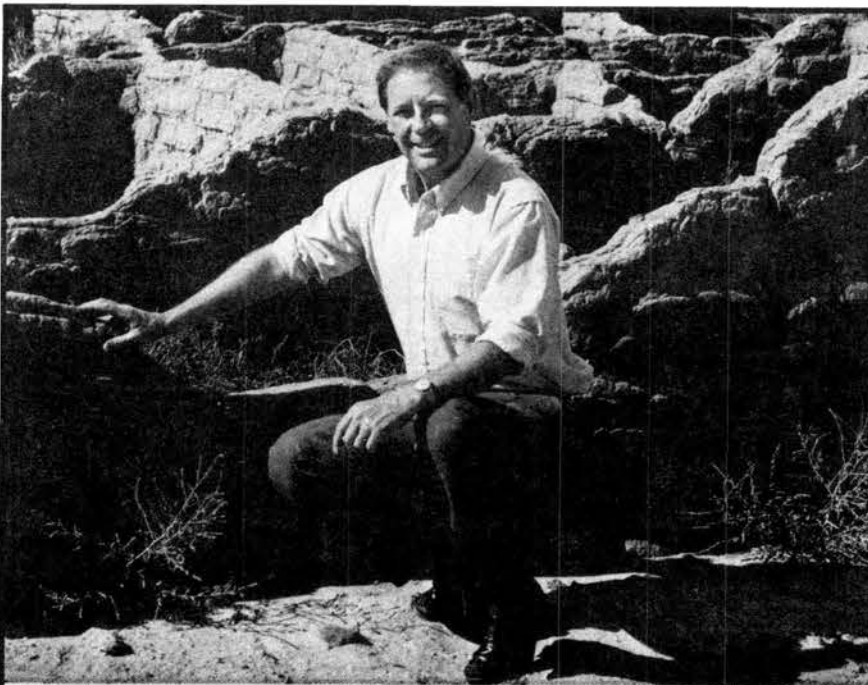
Then there's Wijiji, a sun-watching station that marks on a ledge-top the point on the horizon of both

sunrise and sunset, 16 days before winter solstice.

Just five miles away is the D-shaped town of Pueblo Bonito, all of it astronomically aligned. Two of the walls are constructed in precise N-S and E-W lines. Furthermore, it has a feature that demonstrates how the ancient Chacoans not only watched the sun but captured its rays for creature comfort year-round. The four-story northern section at the canyon wall tilts down to one story at the southern end, forming an immense solar collector in the winter.

The early Chacoans left no written history. But near Penasco Blanco there is a painted history of what

(Continued on Next Page)



RESTING ON HIS WRITING ARM, Ken Frazier (3161) takes some time to visit Coronado Monument and State Park, just outside Bernalillo. The site is much closer to home (a 30-min. drive from Sandia) than is Chaco Canyon (3-1/2 hrs.). Nathan Stone, the monument's manager, speculates that Chacoan descendants left the canyon for the high country. In the 1200s, severe droughts may have attracted them to the Rio Grande valley. By the early 1300s, they built their pueblos here. Coronado visited the site in 1540, calling it the Tigeux Province (for the people's Tiwa language).

From Earth to Sun to Chaco

Kendrick Frazier Hits the Camino Alto

There's nothing placid about Ken Frazier's (3161) literary *cum* scientific pursuits. Just listen to the titles of the books he's written: *Our Turbulent Sun* and *The Violent Face of Nature*.

Then there are two books whose energy, proverbially enough, can't be guessed from their covers: *Solar System* (in the Time/Life series) and *People of Chaco* (see "The Ancient Ones").

Long before Ken came to Sandia's Public Information Division, he was the earth sciences editor at *Science News* in Washington (back in 1969). Soon after he became the magazine's managing editor, and from 1971-77 served as its editor.

He visited Albuquerque for the first time in 1974, after assigning himself to do a story for *Science News* on Chaco land and its burial digs. It was the story that ended up being buried and forgotten.

Albuquerque Beckons

But Ken didn't forget Albuquerque. By 1977, he was living here — as a freelancer and a contributing editor for *Science News* — with his wife Ruth and two children. He wrote the first cover story for the newly founded *Science 80* (a magazine which has recently — and regrettably — folded). The article was on Fajada Butte's just-discovered sun dagger.

In 1981, he signed a contract with W.W. Norton for the book on Chaco Canyon. Research took two years, but the gestation period turned out to be longer than expected, five years. Part of the reason was the persuasive power of Nigel Hey, supervisor of Public Information Division 3161, who drew Ken on board in 1983.

Ken's daily work at Sandia involves writing press releases and arranging interviews at Sandia for reporters and photographers from the major newspapers and a variety of magazines (ranging from *National Geographic* through *Aviation Week and Space Technology* to *Time*).

Albuquerque Beacon

Nonetheless, Ken hasn't lost his keen extracurricular interest in what really happens in the skies above us. While he admits to no stellar plans for more books on the earth or sun per se, he has stayed on the high road by taking upon himself the debunking of latter-day myths.

As Benjamin Disraeli once said, "There are three kinds of lies — lies, damned lies, and statistics." Ken goes after all three.

As editor of *The Skeptical Inquirer*, the official journal of the Committee for the Scientific Investigation of Claims of the Paranormal, he sorts through the chaff of smudged photographs and tall tales on Bermuda triangles, Kirlian auras, Big Feet, UFOs, ESP, levitation, and playing-card telepathy. The task gives him the pleasure of challenging — and discounting — dishonest and untested claims.

To quote someone experienced in the artifice of theatre, George Bernard Shaw, "Science is always simple and profound. It is only the half truths that are dangerous."

As a result of his watchdog role, Ken cleans up the fringes of science for all of us, and particularly for the more gullible ones among us. How he finds the time and energy to take on that task is his secret and our mystery.

Chacoans

may have been the supernova — a stellar explosion — of 1054 A.D.

Chacoan Building Knew No Bounds

Not all roads lead to Rome. The Chacoans had their own roadways, linking Chaco to some of the scores of outlying settlements (most of them still unexcavated), scattered throughout a 26,000-sq.-mi. area of the San Juan Basin. Their roads — those discovered so far total 400 miles in length — were nearly 30 feet wide, with mystifying dog-leg turns. The Chacoans seem to have had no wheeled vehicles as the Romans did, so why all the trouble?

Ken offers a number of 'what ifs' to mull over. Could the roads have been used to carry logs? Could they have been cosmographic symbols? Or ceremonial highways? Or cultural unifiers, the pedestrian interstates of yesteryear?

The reader is left with the delightful burden of choosing a theory, or not patching in any answers at all . . .

Newly settled Southwestern gardeners fighting the summer drought in the Northeast Heights of Albu-

—And, as at so many landmarks in New Mexico, it's still possible to have the historical sites — even the whole park — totally to one's own thoughts, particularly in winter.

querque are bound to wonder how the Chacoans were able to build a complex water-control and irrigation system eight centuries ago. It was made of diversion dams, canals, ditches, headgates, and arrays of banked gardens. Only pieces of it remain today, hidden in shrubbery and rubble.

But the rain-seeking songs, a parallel method — just in case — of water control, live on with the pueblo Indians of Zuni; poetic fragments are scattered throughout the book.

There are other tidbits in Ken's account of Chaco's several pueblos. Pueblo Pintado had 54 apartments. Pueblo Bonito, multistoried and the large-

—Pueblo Bonito: "No other apartment house of comparable size was known in America or the Old World until the Spanish Flats were erected in 1882 . . . in New York City."

—archaeologist Judd Neil

est of the pueblos, had 800 rooms. Ken cites a Smithsonian archeologist, Judd Neil, who claimed that "no other apartment house of comparable size was known in America or the Old World until the Spanish Flats were erected in 1882 . . . in New York City."

Ken's favorite is Chetro Kettle, for its unique features: "There's a four-story-high kiva [underground ceremonial chamber]; an enormous Great Kiva; a huge, covered underground passageway; walled-in colonnades, much like a porch; and a 450-ft.-long straight back wall."

Another site he likes is the small — and thereby visitor-friendly — Pueblo del Arroyo. "It often gets second billing to Pueblo Bonito," says Ken, "even in my book. I didn't discover its delights until after I finished writing. It's so easy to visualize it populated. And today it's picture-perfect: sited at the edge of an arroyo and flanked by cottonwoods."

T-Shaped Doorways, Turkeys, Turquoise

There are many more nuggets — all waiting for rediscovery by readers — that Ken panned from the Chaco Project for each of his chapters.

As Chaco becomes better known as the ancient center for turquoise jewelry, as its carved wooden artifacts and T-shaped doorways become recognized in art and architecture, as ceremonial turkey sacrifice becomes disentangled from Mesoamerican (early Mexican) rites, the national historical park and its outlying areas are bound to become more crowded with tourists.

Today, when only a few thousand people come

R E T I R I N G



Raye Knoff (2831)

33 yrs.



Cliff Rudy (7831)

34 yrs.



Philip Mead (400)

29 yrs.



Paul Field (2541)

34 yrs.



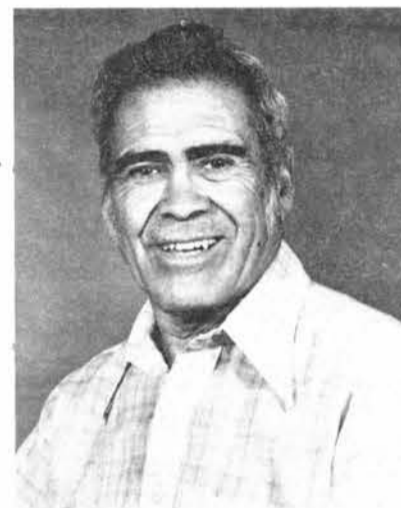
Tom Eglinton (6311)

28 yrs.



Lucille Smith (3152)

30 yrs.



Luis Mora (7818)

23 yrs.



Juan Marquez (7818)

23 yrs.



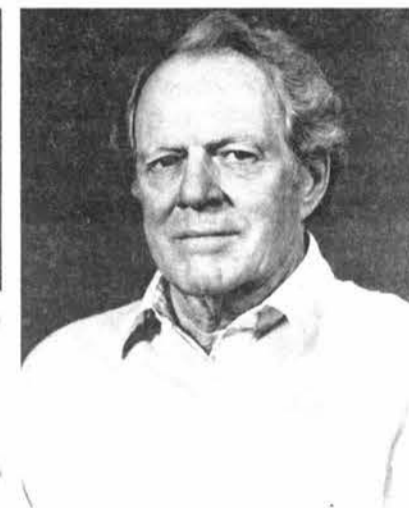
Miguel Garcia (7818)

16 yrs.



Florence Bonnell (4020)

32 yrs.



Jim de Montmollin (5260)

33 yrs.

by every year to peer at the ruins, it is still possible to experience — and to hoard — the magic. That's how the place cast a spell on Ken. "My family spent an afternoon near a burial dig in 1974," he recalls. "We sat around the uncovered skeletons, surrounded by Navajo workers, listening to archeologist Al Hayes telling stories. We spent the night there in the campground at Chaco, near a small ruin. From then on, Chaco was a special place to us."

And, as at so many landmarks in New Mexico, it's still possible to have the historical sites — even the whole park — totally to one's own thoughts, particularly in winter. "I slept on top of Fajada Butte, where I saw a huge meteor," says Ken. "And I photographed some of the other sites in the dead of win-

ter, when a soft snowfall clearly outlined some of the rooms and kivas for me."

There was no book on Chacoans for the general reader at the time. For Ken, it took writing the book himself to get Chaco out of his system.

And today it's available to all of us: an arm-chair traveler's Baedaker, but also the most literate and up-to-date tourbook to Chaco Canyon and its outlying areas. ●ID

People of Chaco will be available at the Living Batch Bookstore (106 Cornell SE, across from UNM), where Ken will host a book signing from 4 to 6 p.m. on Friday, Nov. 7.

Events Calendar

- Oct. 24 — RDT (Repertory Dance Theatre) from Salt Lake City, modern dance; 8 p.m., KiMo Theatre, 848-1374.
- Oct. 24-26 — "La Dama Duende," comedy by Calderón, La Compania de Teatro de Albuquerque; 8 p.m. Fri. & Sat., 3 p.m. Sun.; Nuestro Teatro (3211 Central NE), 256-7164.
- Oct. 24-26 — "Normal Heart," a play by Larry Kramer, produced by UNM Theatre Arts Dept.; 8 p.m., Experimental Theatre, UNM, 277-4402.
- Oct. 24-Nov. 1 — "Criminals of New Mexico," 8 p.m., Vortex Theatre (Central & Buena Vista), 242-4750.
- Oct. 24-Nov. 9 — "The Foreigner" by Larry Shue, Obie and Outer Circle Critics' award-winning comedy about a very shy Englishman who finds himself in backcountry Georgia; 8 p.m. Tues.-Fri., 6 & 9 p.m. Sat., 2 p.m. Sun.; Albuquerque Little Theatre, 242-4750.
- Oct. 24-Dec. 31 — Exhibit, From the Weaver's View: Indian Baskets of the American West; 9 a.m.-4 p.m. Mon.-Fri., 10 a.m.-4 p.m. Sat.; middle gallery, Maxwell Museum of Anthropology, 277-4404.
- Oct. 24-Jan. 5 — Exhibit, "Tiger, Tiger," photographs of animals of India; 10 a.m.-5 p.m., NM Museum of Natural History, 841-8832.
- Oct. 25 — Eric Andersen and Townes Van Zandt, folk music; 8 p.m., KiMo Theatre, 848-1374.
- Oct. 25-26 — Doll, Miniature, and Toy Show; Creative Arts Center, NM State Fairgrounds, 883-6986.
- Oct. 27-31 — "Bluebeard's Ghost," full-length movie; 3:30 p.m. each day, South Broadway Cultural Center, free, 848-1320.
- Oct. 29 — "Dos Pianos, Quatros Manos," Spanish piano duo Pepita Cervera and Teresina Jorda; 8 p.m., KiMo Theatre, 848-1374.
- Oct. 29 — "Symphonie Concertante" by Joseph Jongen, UNM Symphony Orchestra, dedication of the College of Music's new organ; 8:15 p.m., Popejoy Hall, 277-3121 or 277-2518.
- Oct. 30 — Showtime at the KiMo, On Stage Series: Lionel Hampton and his orchestra; 8 p.m. at the Kiva Auditorium, tickets available at the KiMo Box Office, 848-1374.
- Oct. 31 — Halloween Party, with face painter, storyteller, clowns; 4-5 p.m., South Broadway Cultural Center, free, 848-1320.
- Oct. 31-Nov. 2 — The Knee Plays, from "The Civil Wars" by Robert Wilson; 8 p.m. (2 p.m. Sun.), KiMo Theatre, 848-1374.
- Oct. 31-Nov. 9 — NM Repertory Theatre presents "Fool for Love" by Sam Shepard; 8 p.m. Tues.-Sat., 2 p.m. matinee Sat. & Sun.; KiMo Theatre, 243-4500.
- Oct. 31-Nov. 23 — "Imágenes de Garcia Lorca," original dance-drama; KiMo Theatre, 256-7164.
- Nov. 1 — Keller Hall Jazz Series: "Mingus Among-us," a tribute to the music and spirit of Charles Mingus; 8:15 p.m., Keller Hall, 277-4402 or 842-6659.
- Nov. 1 — Pops concert, NM Symphony Orchestra; an evening of Gilbert and Sullivan with guest artists The Savoyards; 8:15 p.m., Popejoy Hall, 843-7657.
- Nov. 1-2 — Camino Real Cat Show; Flower and Opera Bldgs., NM State Fairgrounds, 298-1214 or 265-1791.
- Nov. 1-2 — Collector's Showcase, antiques and collectibles; 10 a.m.-6 p.m. Sat., 10 a.m.-5 p.m. Sun.; Agriculture Bldg., NM State Fairgrounds, 883-6986.
- Nov. 1-2 — Poultry show, Poultry Bldg., NM State Fairgrounds, 265-1791.
- Nov. 2 — Classical piano recital and commentary by Karl Haas, host of "Adventures in Good Music"; 3 p.m., Popejoy Hall, 277-3121.
- Nov. 2 — "Hispanic Women Writers of the Southwest," lecture by Tey Diana Redolledo, chairman of the Women's Studies program at UNM, sponsored by the Friends of the Albuquerque Public Library; 2 p.m., Botts Hall, 268-8678 or 268-5448.

Take Note

A new exhibit, "Ames Laboratory — Contributions to the Manhattan Project," opens at 10 a.m. on Oct. 29 at the National Atomic Museum. During World War II, the Ames Project, located at what was then Iowa State College, supplied the uranium metal necessary for the success of the Manhattan Project. The temporary lobby display focuses on the laboratory's contributions to the atomic bomb project. Guest speakers at the opening are Harley Wilhelm, co-inventor of the process that supplied the metal to the Manhattan Project and first associate director of the Ames Laboratory from its inception in 1947 to his retirement in 1966, and Robert Hansen, present director of Ames Laboratory and director of the Energy and Mineral Resources Research Institute, Iowa State University.

The New Mexico Network for Women in Science & Engineering 1986 Annual Meeting and Technical Symposium is scheduled for Nov. 8 at Valley High School (1505 Candelaria NW). Symposium participants include Dr. Patricia McFeely of the Office of Medical Investigations at UNM's School of Medicine; Kathleen Affholter, a geologist with the NM Museum of Natural History; and Reta Beebe, NMSU astronomer. Registration for the symposium and meeting is at 8 a.m. at Valley's media center. The technical symposium begins at 9 a.m. A social hour will follow the conclusion of the symposium. For more information, contact Barbara Torres on 848-5677.

Irwin Welber (1) will be the guest speaker at the Sunport Optimist Club's 4th Annual Banquet. The event is scheduled for Nov. 11, beginning at 7 p.m. at the Sheraton Old Town Inn. The Club is honoring one boy and one girl from each high school in Albuquerque. From this group, one boy and one girl will be selected Teenager of the Year, and each will receive a \$500 scholarship to the school of his or her choice. The banquet cost is \$12.50/person; anyone is welcome to attend. Sandians holding office in the Club are: David Williams (6449), president; Mike Lucas (7472), lieutenant governor; Bill Lynch (5233), finance chairman; Eddie Gonzales (7813), fund raising chairman; Richard Yoshimura (6323), oratorical chairman; and Jim Tichenor (2533), secretary/treasurer and community chairman. For more information, contact Jim on 265-3843.

"Women in the Military — Past & Present — Tribute II," a special event to honor women veterans and women currently on active duty or members of the guard and reserve, is set for Nov. 9-11 at the Albuquerque Convention Center. The purpose of the Tribute, sponsored by Congressman Manuel Lujan, is to offer informational seminars on problems and concerns of women veterans and those who now serve, and to pay tribute to them for their service. Registration and opening ceremonies begin at noon on Sunday followed by a "war stories" session and a champagne reception. Seminars begin on Monday at 8:30 a.m., and a Tribute luncheon is scheduled for 11:30. Seminar topics include: health care for female veterans, a briefing on the Soviet threat, current policy issues on utilization of women in the military, financial planning for women, the female Vietnam veteran, women in the guard and reserve, the "superwoman" syndrome, and a pictorial perspective on women in war. The deadline for the required advance registration is Oct. 27. The registration fee of \$15 covers coffee breaks, snacks, and the Tribute luncheon. For more information, call Sylvia Chavez Long on 766-2538.

The New Mexico Audubon Council will present a symposium, "The Rio Grande: Lifeline of the Land of Enchantment," on Oct. 25-26 at the Marriott Hotel. Saturday's luncheon speakers include Jeff Haskins, migratory bird coordinator for the Southwest Region of the Fish & Wildlife Service, and Phil Norton, new manager of the Bosque del Apache/Sevillita National Wildlife Refuges. They will speak on migratory bird populations of the Rio Grande Val-

ley and the Bosque del Apache NWR. Included will be the current status of the whooping cranes and the controversial sandhill crane hunt in the Rio Grande Valley. The symposium begins at 10 a.m. Field trips scheduled for Sunday include visits to the Corrales Bosque, the Rio Grande Nature Center, and Petroglyph State Park; a canoeing trip on the Rio Grande; and a Sandia Mountain nature hike. For more information, contact Evelyn Price on 266-4028.

The New Mexico Museum of Natural History has an alternative treat for the little creatures who knock on your door on Halloween. In an effort to join in the spirit of Halloween, the Museum is selling sets of admission tickets (12 for \$3) for children. The tickets are available at the Museum and will be valid through Nov. 30. The Museum continues the Halloween celebration into Nov. 1 by admitting free any child under the age of 12 who appears in costume and is accompanied by an adult. Museum hours are 10 a.m. to 5 p.m.

Participants can benefit, as will the American Lung Association, in tomorrow's 11th Annual "Horse-A-Thon" sponsored by KGGM-TV. Every participant who raises \$50 or more will win a prize, with the top fund raiser winning a saddle worth \$1000. The 20-mile horseback ride along the Rio Grande in Albuquerque is held for the benefit of the American Lung Association and its programs for the control and prevention of lung disease throughout New Mexico. Linda Thorne and Ethel Ortenburger, volunteer co-chairpersons of this event for the past ten years, are coordinating the activities again this year. For more information and sponsor forms, contact the American Lung Association on 265-0732.

Men Wanted

Males with high blood pressure but otherwise healthy are needed for a hypertensive study. The study, approved by Sandia Medical but conducted out of a private physician's office, is designed to assess the effectiveness of a new anti-hypertensive medication. For details, call Barry Silbaugh, M.D., on 294-1000.

Albuquerque celebrities are ready to wait tables and to entertain for the benefit of the Cystic Fibrosis Association. "Celebrity Waiters," is set for 7 p.m. on Nov. 8 at the Marriott Hotel. Julia Gabaldon (3523), who hosts the TV show "Somos Bilingues," is one of the models in the fashion show part of the entertainment. Tickets for this annual event are \$30/person (tax deductible). Raffle tickets will be on sale for \$10. The prize is a three-day trip for two to St. Martin's (or Maarten's) Island in the Caribbean. For more information, contact the Cystic Fibrosis Association on 255-7507.

Holiday Olé is just around the corner. New Mexico's largest holiday shopping mercado (sponsored by the Junior League of Albuquerque) will be held Nov. 7-9 at the Convention Center in downtown Albuquerque. Fair hours are 10 a.m. to 7 p.m. on Saturday and 12 noon to 5 p.m. on Sunday. General admission tickets are available at the door for \$2. There will be more than 65 merchant booths, with many artists and craftsmen displaying and selling unusual, hard-to-find items suitable for Christmas gifts. All proceeds will be returned to the community through Junior League-sponsored projects such as: the Volunteer Center of Albuquerque, the Community Foundation, LEAD (a project that offers leadership training to adolescents), Explora!, Youth Volunteer Board, and the Shelter for Victims of Domestic Violence. For more information, call the Junior League on 247-1800.

Retiring this month and not shown in LAB NEWS photos: William Albert (7482), Jose Guzman (2526), David Henry (5321), Betty Hitchcock (2826), Lorenzo Lopez (2123), and Coy Moss (7484).

MILEPOSTS

LAB NEWS

OCTOBER 1986



Carla Chirigos (7471) 10



James George (6313) 15



Mannie Silva (7864) 25



Esther Coffman (1820) 25



George Garcia (7232) 30



Pam Dellinger (7222) 10



Fred Norwood (1533) 20



Julio Pardo (2544) 30



Jim Mogford (400) 25



Lee Schoeneman (5263) 10



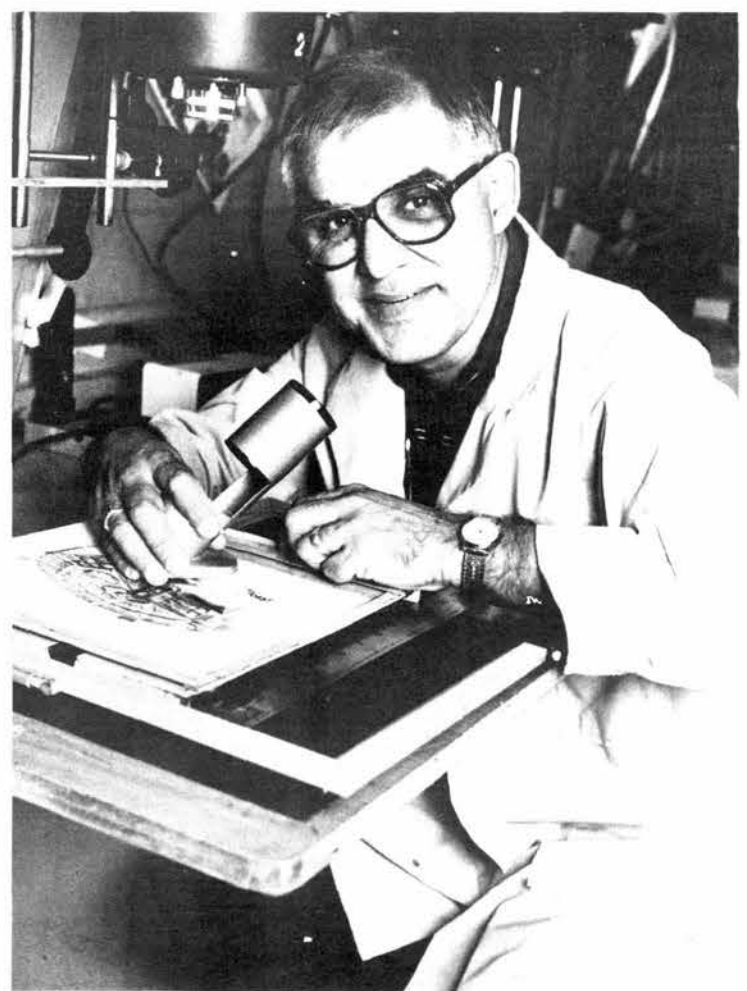
Gerald Bollig (2626) 10



Mary Ellen Puckett (7475) 10



Brett Bedeaux (7123) 10



Sal Gabaldon (3155) 20



Richard Lincoln (2526) 15



Gary Romero (6330) 15



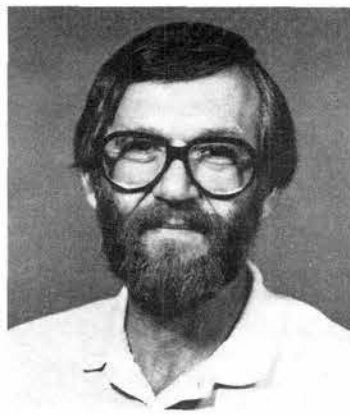
Dick Hanson (2646) 10



Roseann Schultz (2613) 10



Richard Terwilliger (7256) 30



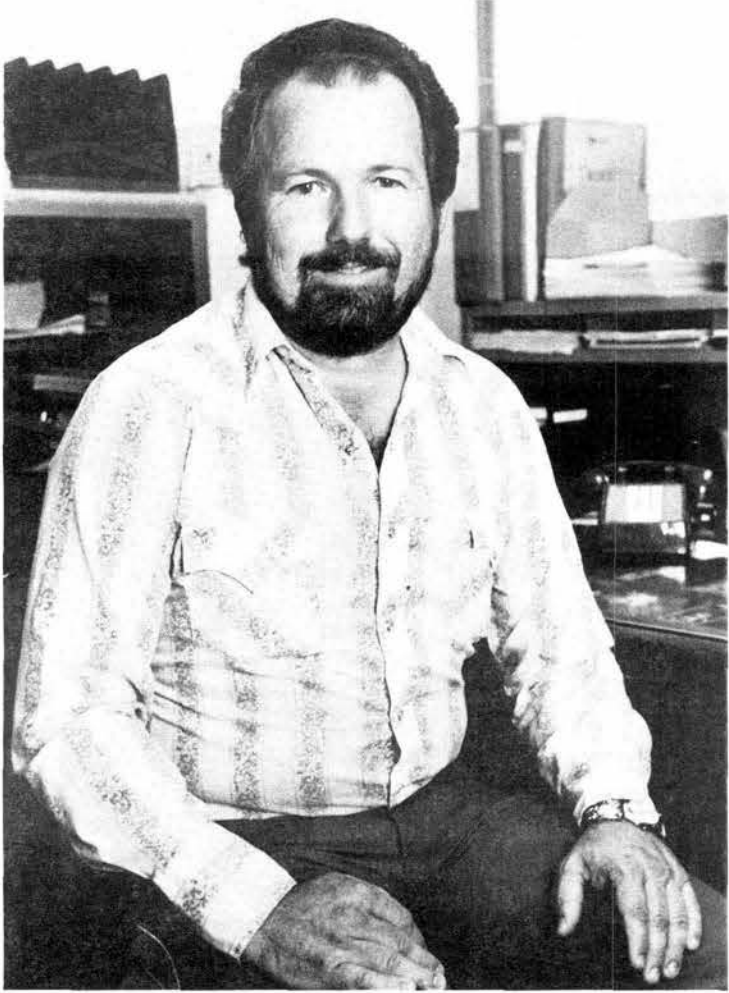
Terry Leighley (7137) 25



Arthur Maestas (3425) 10



Ken Gentry (2812) 30



Archie Gibson (2632) 20



Belva Mayfield (8264) 10



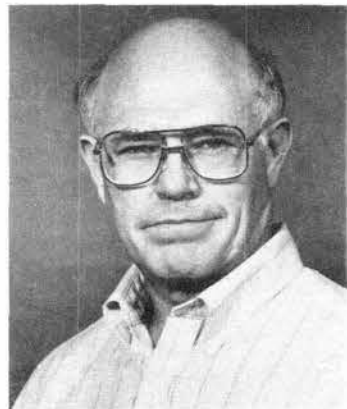
Mel Perkins (5235) 30



Rob Gunter (7481) 10



Keith Brower (1112) 20



Max Morris (6451) 20



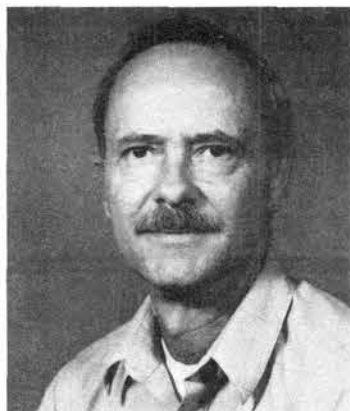
Jim Voytko (7473) 30



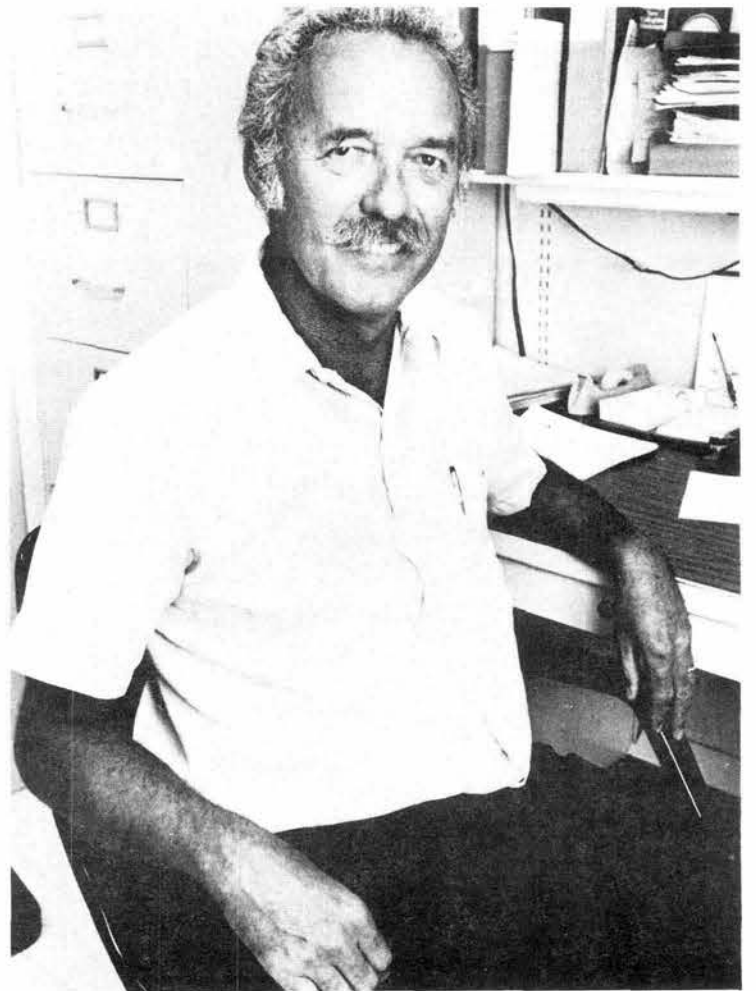
Rudy Jungst (2512) 10



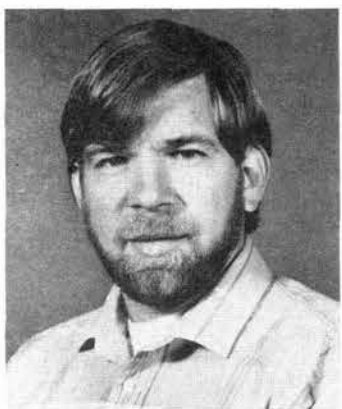
Don Williams (2811) 35



Larry Gillette (7525) 25



Carl Schuster (5234) 30



Earl Graff (5111) 10



Clyde Holland (7556) 25



Darrell Munson (6332) 25

Fun & Games

Bridge — If you like to play bridge but want to avoid cutthroat competition, check out the Sandia Bridge Club. Members play duplicate bridge for fun every Thursday at 7 p.m. at the Coronado Club. The yearly membership fee is \$1. There is also a \$1-per-session fee that is used for prize money. More info from Glenn Burger on 884-5270.

Cross-Country Skiing — The New Mexico Ski Touring Club is thinking snow (Is that why we had a snowstorm on Oct. 12?) and getting ready for a 1986-87 season (snow)packed with cross-country ski trips. Meetings are held the second Thursday of each month from October through March, at 7:30 p.m. in the Fellowship Hall at St. John's United Methodist Church (2633 California NE). Dues are \$5/individual and \$7/family per year. Sandians serving as club

officers and committee members are: Carla Chirigos (7471), vice-president; Bob Croll (1634), treasurer; Dick Traeger (6240), instruction committee; Sam Beard (1633) and Dave Saylor (2813), trails committee; Eldon Boes (6221), trip committee; Eric Russell (5255), newsletter committee; and Paula McAllister (1231), membership committee. Lessons are available for beginners. Sessions include two in the classroom and one in the field. Prospective members are welcome to join. For more information, contact Paula on 296-7774.

Golf — SWGA ladies journeyed to Socorro on Sept. 20 for the last tourney before the championship. Winners were: first low net, Ree Gerchow (122); second low net, Mary Scott (3463); low putts, Phyl White (5122). Ree had the longest drive (a beauty)

and Nina Coe (7533) put her ball closest to the pin.

More Golf — Despite rocky greens, threatening weather, and disappearing balls, the SGA Cup for 1986 on Sept. 13 & 14 reached a successful conclusion as 50 players slugged it out over two tough courses. Winners were: low gross - Flight A: Leon Chapman; Flight B: Michael Coltrin (1126); Flight C: Florencio Aragon (5113). Low net winners were: Flight A: Gerald Quinlan (2642), E. Chapman (ret.), James Schwank (2144), Mark Calvin (3532), and William Lutgen (2853); Flight B: J. L. Mills (7842), Rand Rozelle (2857), Stephen Dwyer (7842), Daniel Buller (1111), and Frederick Salas (2512); Flight C: Bob Wood (5122), Thomas Welch (342), Robert Statler (7133), Floyd Braaten (2513), and Brian Finley (ret.).

UNCLASSIFIED ADVERTISEMENTS • UNCLASSIFIED ADVERTISEMENTS • UNCLASSIFIED ADVERTISEMENTS • UNCLASSIFIED ADVERTISEMENTS

Deadline: Friday noon before week of publication unless changed by holiday. Mail to Div. 3162.

Ad Rules

1. Limit 20 words, including last name and home phone.
2. Include organization and full name with each ad submission.
3. Submit each ad in writing. No phone-ins.
4. Use 8 1/2 by 11-inch paper.
5. Use separate sheet for each ad category.
6. Type or print ads legibly; use only accepted abbreviations.
7. One ad per category per issue.
8. No more than two insertions of same ad.
9. No "For Rent" ads except for employees on temporary assignment.
10. No commercial ads.
11. For active and retired Sandians and DOE employees.
12. Housing listed for sale is available for occupancy without regard to race, creed, color, or national origin.

MISCELLANEOUS

- ADS 2030 SPEAKERS; Carver C-4000 pre-amp; M-1.5t amplifier; DTL-100 laser disc player; receivers and cabinets. Gumley, 884-1673.
- PROPANE BOTTLE w/removable grill; propane stove with 8' pipe, w/hose and regulator, \$65. Harris, 255-6577.
- MAYTAG WASHER, double-loader, 3 yrs. old, \$200; dryer, 6 yrs. old, \$50. Robertson, 255-8925.
- CANDLESTICK PHONE, white, Western Electric, \$50; blonde wood toilet seat w/bamboo trim on top, \$15. Anderson, 296-3352.
- SOLAR COLLECTORS, hot-air type, 3 available including hot water preheater, make offer. Braithwaite, 822-1998.
- FREE TO GOOD HOME, Doberman/husky cross, 2 yrs. old, female, good dog but high-strung, muscular, approx. 45 lbs. Patteson, 822-1722.
- INSULATION KIT for water heater, round, gas or electric, up to 80 gallons, never unpacked, cost \$25, asking \$15. Schkade, 292-5126.
- PENTAX SPOTMATIC, plus 35mm, 50mm, 85mm, and 135mm Pentax lenses, misc. accessories including Vivitar electronic flash, \$200 OBO. Kramer, 294-0488.
- FULL-SIZE BOX SPRING and mattress, \$30. Nevers, 294-6495.
- AMIGO TRUNK LIFT for wheelchair, \$300; shower seat, \$20. Young, 256-1361.
- RED TAIL BOA CONSTRICTOR, 7-8', female, w/cage and accessories, \$200 OBO. Powell, 877-4939 after 5.
- ELECTRIC DRYER, GE, white, \$25; "Masters of the Universe" figures, Castle Graykull, more, \$1.50 to \$5. Zutavern, 298-6523.
- SUNLAMP, new, \$15; tabletop electric broiler, \$18. Horton, 883-7504.
- DOG HOUSE, large, \$50. Middleton, 293-8164 after 5.
- GOLF CLUBS, MP Classic metal woods (1,3, and 5), pro-style regular flex, \$105. Everhart, 266-3852.

ENTERTAINMENT CENTER, 60" x 17" x 71-1/2", \$200; box spring, new mattress w/frame, \$200; glass dining room table, metal base, 2 chairs, \$200. Boyer, 298-3893.

BOY'S CAPTAIN'S BED, mahogany, Roadrunner design mattress, 2 large drawers, \$100; large sofa, end tables, coffee table, \$150. Stewart, 298-4955.

COCKER SPANIEL PUPPIES, AKC-registered, born Sept. 26, \$150/ea. Caldwell, 821-7110.

KING-SIZE WATERBED, solid oak, w/bookcase headboard, 4-drawer pedestal, originally \$1800, will sell for \$1200. Bennett, 299-7019 or 298-4547.

QUEEN-SIZE HARDWOOD PIER UNIT, w/light bridge, mirrors, and side storage units, \$800. Anspach, 296-8712.

SKIS, two pairs, Phoenix Classic Telemark, 190cm and 205cm lengths, \$95/pair. Johnson, 296-1236.

IBM-PC DUAL FLOPPY DRIVES, 640K, color graphics, serial, parallel, clock board, IBM keyboard, color monitor, \$1395. Mason, 299-2836.

PORTABLE TV, RCA, 13", color, model EC337G, \$100. Rainhart, 821-3690.

OAK PEDESTAL TABLE and 4 captain's chairs, \$325. Eley, 242-8530.

TRAIN SET, HO-gauge and slot car racing track combination, on a 4' x 8' board w/rolling stock, \$150. Heid, 892-8608 after 6.

BUNK BED SET, dark pine, w/mattresses, \$95. Pitcher, 292-4091.

THREE-FAMILY garage sale, Oct. 24-25, 9 a.m.-4 p.m., 11817 El Solindo NE. Dandini, 296-4975.

SAVIN 755 COPIER, 2 paper trays (8-1/2 x 11 and 8-1/2 x 14), toner and dispersant recently added, \$300. Vernon, 892-6571.

DESK, 3' x 5', with swivel chair, \$250. Dawes, 821-8155.

POOL TABLE, 4' x 8', \$275 OBO; exercycle, 570 miles, \$50 OBO. James, 294-6837.

SAILBOARDS (2): Tencate "Fun Fan," 140 liters, 10'10", \$395; Windsurfer Rocket 83, 8'1", 102 liters, \$215; Burton Elite 150 snowboard, \$195. Healer, 298-6967.

WATERBED BEDROOM SET, 6 pieces, 1 yr. old, original cost \$1200, sell for \$800; Sony TV, \$200; Kirby vacuum cleaner; IBM typewriter, more. Otero, 293-4462.

AMANA MICROWAVE OVEN, Model RRL10XA, programmable, full-size, under warranty, \$250. Renk, 242-1277.

DRAFTING TABLE LIGHT, heavy-duty, \$45. Korbin, 821-8461.

BABY SWING, Gerry Bear 3, navy blue, reclining, corduroy seat, quiet rewind, cost \$50, sell for \$35. Barr, 821-5870.

DOBERMAN PINSCHER PUPS, dew claws and tails cropped, seven females and two males, red, black, or fawn, \$75/ea. Durnell, 255-8283.

BUNK BEDS, \$75 OBO. Bailey, 821-4394.

MUD & SNOW TIRES, 155SR12, set of four, used one season. Davis, 281-1248.

RIVERA CUSTOM BLINDS, 72" x 24", \$106/ea.; Sanyo Beta VCR, wire control, still in box, \$160. Gallegos, 296-3896.

ELECTRIC BEDS, extra-long, twin-size, \$275/both. Juhasz, 296-8077.

TIRES: four 12 x 15LT, \$60; four 15-in. 8-hole Jackmans, \$60; four 31 x 10.5 x 16.5 Plainsman radials, new, \$120. Gronewald, 242-6072.

FREE FERTILIZER, guaranteed organic composted horse manure, for new lawn preparation or garden, lots available, you haul. Moore, 345-4030.

CARPET & PAD, approx. 115 sq. yds., brown, 6 years old, available early November, best offer for lot. Hendrick, 296-2163.

WASHER & DRYER, Kenmore heavy-duty, 2 years old, white, \$500; harvest gold pair, \$150. Mayer, 299-8524.

TIRES: four 8.75 x 16.5 Force 4 radials, \$140 OBO. Romero, 281-9423 after 7.

SUPER DEFROSTER for fridge, new, \$6; Grip-Rite jar opener, new, \$3; swinging doors for 36" opening, w/hardware. Hines, 821-8592.

BLACK WALNUT TREE TRUNK, freshly-felled, 12" dia. x 12' length, mostly light wood, \$25. Meikle, 299-4640.

GE COOKTOP, brown, new, \$200; 5' round and 3' round calfskin rugs, \$75 and \$50; cedar chest, \$135; saddle, \$150. Blackledge, 294-6030.

KITCHEN TABLE w/leaf, \$35; coffee table, \$20. Green, 298-8033.

DINETTE SET, table w/2 leaves and 6 chairs, \$100. Dellinger, 821-2042.

CHEST OF DRAWERS w/matching full-size bed, maple, \$125; painted chest of drawers, small, \$75 OBO. Borgman, 299-6010.

CAR PARTS for '74 Honda Civic: engine, transmission, doors, hatch, rear bumper, dash, etc., first \$200 must take everything. Zirzow, 294-7296.

DISHWASHER, Kitchen Aid, gold, built-in model, \$75 OBO. Maxwell, 883-3819.

BEDROOM SET: dresser w/mirror, night stand, 4-drawer chest, head board, double-bed mattress and frame, \$450 OBO. de Souza, 266-4272.

TRANSPORTATION

'69 FORD F100 PICKUP, long wide bed, 4 spd., 360 engine, new air shocks, rear tires, and exhaust system, 8-1/2' camper w/jacks, oven, stove, icebox, \$2600 OBO. Morrow, 281-3417.

'74 VW w/rebuilt engine, \$1500. Altwies, 883-5453 after 5.

BMX BIKE, Team Mongoose w/everything, alloy rims, neck, seatpost, clamp, etc., \$100 OBO. Foor, 298-4980.

TREK 560 BICYCLES, 54cm and 61cm frames, new, \$350/ea. OBO. Loucks, 281-9608.

'80 SUBURBAN, 4-WD, 3/4-ton, dual air, 4-spd., 350 engine, regular gas, 40-gal. tank, 66K miles. Cook, 255-7396.

'79 VW RABBIT DIESEL LX, 30/50 mpg, AC, AM/FM tape, one owner, \$1850. Walker, 821-4059.

'77 FORD BRONCO. Reif, 299-2665.

'74 VW BUS, 7-passenger, 23.6K miles on rebuilt engine and clutch, \$1250 OBO. Madden, 296-1082.

'74 TOYOTA, 2-dr. sedan, 14K miles, needs rear quarter panel. Smith, 299-5030.

'79 BUICK REGAL, 47K miles, 2-dr., V-6, AT, AC, AM/FM, cruise, one owner, \$2950 OBO. Coleman, 822-8118.

'79 CHEV. PICKUP, 6-cyl., 3/4-ton,

4-spd., 80K miles, \$1975 OBO. Muirhead, 281-2925.

'77 DODGE CUSTOM VAN, low mileage, factory conversion package, extras, \$4100 OBO. Romero, 1-864-6254.

'77 DATSUN 280ZX 2 + 2, AM/FM cassette; '79 JEEP CJ7 4X4, soft top, 6-cyl. Gearhart, 883-1131 or 294-5459.

'71 CHEVELLE STATION WAGON, 130K miles, 307 CID, AT, \$350. Murphy, 889-0802 or 881-1520.

'74 FORD PINTO, 4-spd., AM/FM cassette, louvers, extra rear snow tires included, \$1300 OBO. Garcia, 898-3422.

'80 FORD PINTO, 47K miles, 4-spd., white, AM/FM stereo, \$2100 OBO. Snell, 298-3977 after 5.

'72 BRONCO, 302 V-8, 3-spd., 84K miles, \$3300 OBO. Welch, 255-9650.

GIRL'S BICYCLE, 20", \$60. Abel, 296-6089.

'84 TRANS AM, high output, 5-spd., AC, PS, PB, multi-adjustable bucket seats, louvers, silver, \$8600. Di-Bisceglie, 821-2234.

'75 BMW MOTORCYCLE, 750cc, w/URAL sidecar, one owner, 10K miles, \$3500. Claussen, 293-9707, leave message.

MEN'S TOURING BIKE, Fuji, 24", Series IV, 18-spd., 6 mos. old, \$395. Hughes, 265-1698.

'77 KAWASAKI KZ650B1, \$750. Shipley, 296-5377 evenings.

'85 MAZDA 626, 5-spd., 4-dr., AC, cruise, PS, AM/FM cassette, 22K miles, transferable 5/50 warranty, \$8200 OBO. Mattson, 266-0336.

'69 MERCURY MONTEGO, PS, 302, \$300. Gronewald, 242-6072.

BICYCLE, Sears Free Spirit, 26", 10-spd., best offer. Bame, 296-2701.

'72 OPAL RALLEYE, 4-spd., 79K miles, \$250. Keltner, 298-7888.

'80 FORD VAN, 250 Econoline, Chateau package, 36K miles, fully loaded. Mayer, 299-8524.

'78 CELICA GT LIFTBACK, AC, stereo, AT, 63K miles, maintenance records, \$3000. Finley, 299-0739.

'74 OLDS 98, low mileage, tan over chocolate brown. Kureczko, 298-1577.

'85 SUBARU XT Coupe Turbo, sunroof, digital dash, all power, AM/FM cassette, extras. Gonzales, 255-2506.

'78 VW Dasher, AC, AT, PS, PB, AM/FM stereo, 4-dr., 67K miles, \$1350. Williams, 864-3617.

'71 PORSCHE 914, new paint and upholstery, dual Delarto carbs, Weltmeister suspension, \$4000 OBO. Bentz, 299-3448.

'76 AUDI FOX, 4-dr., AC, AT, \$600 or trade for computer, amateur radio, small tractor, etc. Foster, 281-3975.

'71 OLDS CUTLASS, all original, 62K miles, one owner, service record, \$3000 OBO. Kmatz, 299-5978.

'68 HONDA CL350 MOTORCYCLE; 25K miles; recently purchased tachometer, speedometer, and seat cover; 2 helmets, one full-face, \$200. Conley, 298-7862 7-9 p.m.

'81 HONDA CX500D, low mileage, sell or trade, would consider camper, shop equipment, etc. Zirzow, 294-7296.

'65 FORD PICKUP, short narrow bed, 60K miles on rebuilt engine, \$795. Jones, 299-4776.

'66 BRONCO, 300 CID engine, extras,

4.11-1 ratio, \$2800. Murphy, 831-3052.

'78 CHEV. LUV, 113K miles, \$1000. Glowka, 281-1488.

REAL ESTATE

3-BDR. HOME, 2 baths, FP, landscaped, fenced, sprinklers, garage, 3 yrs. old, Las Vegas, Nev. Toupal, 266-1549.

3-BDR. HOME, 1-1/2 baths, large lot, updated. Gallegos, 884-7532.

3-BDR. MOBILE HOME, 14' x 80', 1/2-acre lot, family park in Bosque Farms, assumable loan, extras, flexible terms. Gilbertson, 869-3468.

3-BDR. HOME, Chelwood/Copper NE area, 1-3/4 baths, covered patio, backyard access, den, schools within walking distance, \$73,800. Lyons, 293-4188.

10 ACRES near Heron Lake, heavily wooded with ponderosa pines, owner can finance. Lovelace, 299-7354 after 6.

3-BDR. HOME, 1600 sq. ft., near Moon and Candelaria, 1-1/2 baths, den, FP, schools within walking distance, \$69,500. Ladig, 299-3308.

3-BDR. HOUSE and storage building, in Tajique, 46 miles southeast of Albq. at Fourth of July Canyon turn-off. Zamora, 294-3737.

MOBILE HOME, 1973 Cameron Skyline, 12' x 57', furnished, North Valley park, close in, married couples, \$7600. Rudolph, 298-0941 after 5.

3-BDR. HOME near Barstow and Harper, 1-3/4 baths, sunroom, pitched roof, 1850 sq. ft., \$99,500. Arellano, 822-8132.

WANTED

REAR SEAT for '70 Ford Bronco. Romero, 1-864-6254.

2- TO 4-YR.-OLD COMPANION for my 3-yr.-old daughter, my home, Four Hills Addition. Martinez, 296-9035.

CAGE for guinea pig. Rex, 344-6552.

ATARI GAME cartridges. Lucero, 296-2473.

ROOMMATE, share 2-bdr. house in Tijeras Canyon, 10 min. from Eubank Gate, non-smoker, dog OK. Boslough, 294-3907.

AIR-COOLED ENGINE, 7-10 HP, used and operational or rebuildable. Cyrus, 898-4038.

WITNESS of car accident, Eubank & Central, on Friday before Labor Day. Driver injured and car totalled; had no collision insurance; claim rejected. Dubicka, 296-6557.

WORK WANTED

PART-TIME JOBS, for UNM athletes, 10-15 hours/week. Douglas, 281-9843.

LOST

LADY'S GOLD WATCH, Bulova w/latch band. Gallegos, 884-7532.

Motto for Next Week: Go Spooks, Go!

WHICH WITCH SHOWS UP WHEN? That's the big question around the C-Club during the coming week as everybody's sparked by spook spirit — that well-known phenomenon that crops up around the end of October every year. The kids get things started Sunday night (Oct. 26) when they arrive in costume for the big haunted house party from 5-9 p.m. It's games throughout the evening, hair-raising movies, and a trip through the haunted house for the brave ones. A low-cost buffet featuring hamburgers and hot dogs fit for King Goblin himself will be available. For space reasons, this one's limited to members' children only. There's a \$1 admission charge at the door.

GHOST RIDERS IN THE SKY they're not, but Spinning Wheel's Latin rhythms will have you whirling like a dervish when adults catch the Halloween spirit on Friday night, Oct. 31. So put on your dervish costume and come on out for the two-for-one special dinner that night; it features prime rib and poached halibut — two entrees for special spooks for only \$14.95. We don't know whether or not dervishes are into rhumbas, but you can find out from 8-midnight (the *real* witching hour!), when Spinning Wheel belts out those tunes. Call in an early reservation for this eerie experience (C-Club office, 265-6791).

PENNSYLVANIA SIX-FIVE-OH-OH-OH is among the golden oldies you'll hear tomorrow night (Oct. 25) when Don Lesmen and his crew with the Big Band sound play those smooth songs from the 40s and 50s. Real music with intelligible words — a rare experience these days! Make an evening of it by starting out with the two-for-one dinner special (prime rib or fried shrimp). Call the C-Club office immediately — if not sooner — to see if there's still space available.

THESE WOLVES ALWAYS HOWL at the door — of Lobo games, that is. And the Coronado Wolfpack plans to be there in full force tomorrow night (Oct. 25) to cheer on the Lobos when they tackle those mean, lean Aggies from down south (the Las Cruces kind, not the Texas variety). The Pack celebrates Oktoberfest beforehand with one of its renowned tailgate parties in the KOB tailgate area close to UNM's ticket office at the Pit. The Wolves furnish sausage, along with some really good dark beer and schnapps samples; you bring some kind of a dish to go along with the libations. The action starts at 4 p.m., three hours ahead of game time.

The Pack is back on Nov. 8 — same place, different time — for a Mexican fiesta tailgate party before the Lobos' game with Tulsa. Beverages are furnished, and you bring along some kind of dish that ties in with the south-of-the-border theme: posole, chile beans, all that good kind of stuff. The game's at 1:30 p.m., so the party beforehand starts at 11 a.m. If you've never been to a Wolfpack tailgate whoop-de-do, better come on out — these people throw a heck of a good party!

PHINEAS FOGG DIDN'T SHOW UP at the balloon festival, but he *did* travel around the world in 80 days — partway with balloon transportation. Ed Neidel (2361) and wife Lu circled the globe in 80 days too, but no balloon, thank you. If you weren't there for Part I of their travelogue last night, you missed a fine show, according to the rave reviews we've received. But there's some consolation — you can catch Part II next week on Thursday, Oct. 30, starting at 7:30 p.m. in the ballroom. Ed and Lu recall fascinating experiences in India and in continental Europe on the next go-around. Don't miss hearing about sacred cows, those lickety-split European trains, the May Day dinner in Paris, and many more weird and wonderful things.

WELCOME TO THE CLUB — and heart and diamond and spade. They're all yours when you show up to match wits with those Thunderbird card players.



SPOOKS GALORE are what's in store for kids who show up at the haunted house party on Sunday. This little devil was there last year, and says it's the hottest party in town.

These sharpies get together a couple of times a month for all kinds of fun and games. Their motto: "Beat those Las Vegas dealers in '87!" Rumor has it the T-Birds plan to storm tinsel town one of these days with a trick or two up their sleeves. Next shuffle-'n-eat session (yes, Virginia, the munchies abound) starts at 10:30 a.m. on Oct. 30.

OLD BLUE WAS A GOOD DOG, and Old Yeller was too — or so they tell us. You'll get a chance to see the latter on the Club's big screen at 6 p.m. at Family Fun Night, Saturday, Nov. 1. As always, the movie is free, and it's preceded (from 5-6) by a low-cost buffet loaded with culinary delights — items like pizza, hot dogs, etc. — that'll please every member of the family. Better mark your calendar for this one.

THE SUNDAY BRUNCH BANDWAGON keeps rolling along in November (on the 2nd and 16th). Bring the family and friends to what certainly has to be the Duke City's best brunch buy. The bountiful buffet, served from 11 a.m.-2 p.m., presents all sorts of goodies: baron of beef, ham, sausage, scrambled eggs, hash browns, fruit salad, salad bar, and — of course — that world-famous green chile. The best news of all: Brunch cost is only \$4.95, and it's half price for kids under 12. Call the C-Club office for reservations.

SHUFFLE AND STOMP to the C-Club two weeks from tonight (Nov. 7) for an evening with the Isleta Poor Boys. The "real" dancing starts at 8:30 p.m., but you can warm up ahead of time with c/w lessons from 7:30-8:30. The two-for-one special that night puts filet mignon and fried shrimp in the spotlight, but other entrees — courtesy of Chef Henry and that extraordinary bunch of people in the kitchen — are available as well.

TAKE THE HIGH ROAD by signing up for one — or more — of those terrific trips planned by the C-Club Travel Committee. It's easy, it's fun, and you're practically on your way once you make your reservation at the C-Club office. Here's the line-up:

Road to the Capitol — Washington, D.C., and historic Virginia in the spring; couldn't be a nicer time to go! And this one's scheduled April 4-11, so start planning ahead. It covers many points of interest, including Mount Vernon, the Capitol, White House, the Smithsonian, and Manassas (Bull Run) Battlefield Monument. We could go on and on, but you get the idea. There are visits to Richmond, Williamsburg, Yorktown, and Jamestown too. Once you've OD'd on all this history, return to D.C. just in time to watch the Cherry Blossom Festival Parade. The price of \$777/person (double occupancy) covers all of the above, seven nights' lodging (including one night in Richmond and two in Williamsburg), lunch at the famous Michie Tavern in Charlottesville (Va.), a farewell dinner in D.C., and transportation (air and bus).

Road to Rio — This is your golden opportunity to tour that continent to the south of us, with visits to places like Buenos Aires, Cuzco, Lima, Machu Picchu, and Rio de Janeiro. (The timing is great in Rio; its carnival is in full swing while you're there!) The tab of \$2200/person includes round-trip air fare, 12 nights' lodging, three dinner shows, daily continental breakfasts, baggage handling and transfers, and five city tours.

Road to Riches — Maybe. By popular demand, another trip to "Las Vegas South" — Laughlin, Nev. — is on tap Feb. 20-22. For \$105/person (double), you get RT charter bus fare, two nights' lodging, tours of Lake Mohave and Davis Dam, some meals, and snacks and drinks along the way. Also included (maybe not for free!) is all that fun at the gaming tables in Laughlin.

Just Fill in the Blanks



Generic news release, courtesy of the National Association of Realtors: "Home resale activity in (state) during the first quarter this year was (number) percent (higher/lower) than in the first quarter last year, the (name of state association or designated spokesperson) reports." The release was a standardized form that the trade group usually sends to its branch offices. "You're not supposed to have that," says a spokesperson in Chicago. "You're supposed to throw that away and pretend you didn't see that."

Cynthia Crossen, Wall Street Journal



SHINY PLACES, SMILING FACES: The new Badge Office, staffed by Lou Tidwell (on left) and Annette Chavez (both 3437), is much bigger — and has a waiting area with more chairs, tables, and phones to accommodate new hires and visitors. Although the new, curved counter is actually shorter than the old straight-away, Annette says "it's more efficiently designed and also encourages eye contact."